

MONTECITO RANCH

APPENDIX E

BIOLOGICAL TECHNICAL REPORT

and

RESOURCE MANAGEMENT PLAN

for the

DRAFT FINAL ENVIRONMENTAL IMPACT REPORT

SP01-001; VTM 5250RPL6; P04-045; P09-023; GPA 04-013; R04-022;
STP 08-019; ER 09-013; Log No. 01-09-013; SCH No. 2002021132

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APPENDIX E – BIOLOGICAL TECHNICAL REPORT INFORMATION FOR THE READER

This document consists of the Biological Technical Report (BTR) for the Montecito Ranch Project (Proposed Project or Project) and analyzes biological-related elements associated with construction and operation of the Project. Since circulation of the Draft Environmental Impact Report (EIR) of the Proposed Project and associated technical reports, there have been some changes in Project description.

The BTR that circulated with the Draft EIR indicated that a 10.6-acre future school site would be located off of future Montecito Ranch Road in the vicinity of the proposed parks and wastewater reclamation facility. At this time, this use is being eliminated from the Final EIR, and hence the BTR. Any graphic or text references to the future school site should be ignored by the reader. Upon Project approval, the future school site will be excluded from the Project and placed into open space. This alteration in the Project description would not change the conclusion with regard to the level of significance of impacts because removal of the future school site and placement into open space would be biologically beneficial as less grading would be required during the construction period.

The fuel modification zone for the Project has been revised since public circulation based on requests from the Ramona Fire District. A larger fuel modification zone has now been incorporated along the northeastern portion of the Proposed Project development area, allowing for a 100- to 150-foot setback, instead of the 100-foot setback previously proposed. The modified impact footprint is reflected in the Final EIR on revised Figures 1-6 through 1-9. This alteration would not change significance conclusions because revisions to the fuel modification zone would actually result in an additional 2.35 acres of open space adjacent to the proposed residences.

Each of the above-cited revisions are now included as part of the public record and will be before the Board of Supervisors during their consideration of the Project.

**MONTECITO RANCH
BIOLOGICAL TECHNICAL REPORT
TM 5250**

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Summary of Findings

The proposed 935.2 acre Montecito Ranch project (proposed project) is located in the unincorporated community of Ramona in the County of San Diego. The project site is located approximately one mile northwest of the Ramona Town Center. Pine Street, which also serves as State Route 78 borders the eastern project boundary, while Montecito Way extends southerly from the southern project boundary.

The project proposes the construction of 417 single family homes, park site, associated roadways and trails. The proposed project would have significant impacts to coastal sage scrub, oak woodlands, chaparral, non-native grasslands and riparian scrub. These impacts and associated mitigation are summarized in the attached tables. All significant impacts are reduced to below a level of significance through preservation, creation, and management of open space. The attached summary tables provide the existing acres, impact acres and required mitigation for each habitat type.

The project also includes several offsite roadway improvements and offsite facilities including the construction of an offsite water tank. The project also proposes to widen Ash Street, widen Montecito Way, and widen Montecito Road from Montecito Way to Main Street. Offsite habitats and acres are provided in the attached tables.

Montecito Ranch contains several native plant communities, including oak woodlands coastal sage scrub, chaparral, wetlands, and non-native grasslands. Twelve different habitat types occur onsite as defined by the County of San Diego. These include:

- Southern Coast Live Oak Riparian Forest: 10.60 acres
- Open Engelmann Oak Woodland: 18.60 acres
- Dense Engelmann Oak Woodland: 13.60 acres
- Southern Riparian Scrub: 0.30 acres
- Disturbed Wetland: 0.73 acres
- Diegan Coastal Sage Scrub: 318.93 acres
- Southern Mixed Chaparral: 229.10 acres
- Chamise Chaparral: 25.20 acres
- Non-native Grassland: 50.22 acres
- Eucalyptus Woodland: 2.50 acres
- Developed: 18.50 acres
- Mitigated Impact Area: 246.92 acres

USFWS protocol level surveys were completed for the Quino Checkerspot butterfly, California gnatcatcher, Stephens' Kangaroo rat, and Riverside and San Diego Fairy Shrimp. Habitat assessments were conducted for Southwestern arroyo toad and other sensitive species.

Sensitive plant species observed onsite include:

- Peninsular spineflower
- Delicate clarkia,
- Rushlike bristleweed,
- Engelmann oak
- Southern Tarplant

Sensitive wildlife species observed onsite include:

- Raptors
- California gnatcatcher,
- Loggerhead shrike
- Southern California rufous crowned sparrow
- Black-tailed jackrabbit
- Coastal western whiptail
- San Diego Horned Lizard
- And two striped garter snake

Summary Table
Montecito Summary of Impacts and Mitigation

| Habitat Type | Total Acres Onsite | Direct Impacts | Acres Not Impacted | Mitigation Ratio | Mitigation Required | Acres Not Allowed For Mitigation* | Acres Available For Mitigation | Mitigation Achieved Onsite? | Acres Remaining for Possible Mitigation |
|---|--------------------|----------------|--------------------|------------------|---------------------|-----------------------------------|--------------------------------|-----------------------------|---|
| Southern Coast Live Oak Riparian Forest | 10.60 | 0 | 10.6 | 3:1 | 0 | 9.42 (RPO) | 1.18 | n/a | 1.18 |
| Open Engelmann Oak Woodland | 18.60 | 0.39 | 18.21 | 3:1 | 1.17 | 4.19 (RPO) | 14.02 | yes | 12.85 |
| Dense Engelmann Oak Woodland | 13.60 | 0.93 | 12.67 | 3:1 | 2.79 | 8.61 (RPO) | 4.06 | yes | 1.27 |
| Southern Riparian Scrub | 0.30 | 0 | 0.30 | 3:1 | 0 | 0.30 (RPO) | 0 | n/a | 0 |
| Disturbed Wetland (Ag ponds) | 0.73 | 0 | 0.73 | 3:1 | 0 | 0 | 0.73 | n/a | 0.73 |
| Diegan Coastal Sage Scrub | 318.93 | 69.31 | 249.62 | 2:1 | 138.62 | 0.52 (RPO) 106.90 (O.S.) | 142.20 | yes | 3.58 |
| Southern Mixed Chaparral | 229.10 | 123.27 | 105.83 | 0.5:1 | 61.63 | 1.16 (RPO) 4.00 (O.S.) | 100.67 | yes | 39.04 |
| Chamise Chaparral | 25.20 | 11.57 | 13.63 | 0.5:1 | 5.78 | 0 | 13.63 | yes | 7.85 |
| Non-native Grassland | 50.22 | 27.61 | 22.61 | 1:1** | 27.61 | 1.60 (RPO) 15.08 (O.S.) | 5.93 | no*** | -21.68 |
| Eucalyptus Woodland | 2.50 | 0.14 | 2.36 | 0:1 | 0 | 0 | 2.36 | n/a | 2.36 |
| Developed | 18.50 | 13.19 | 5.31 | 0:1 | 0 | 1.25 O.S. | 4.06 | n/a | 4.06 |
| Mitigated, Impacted Area | 246.92 | 150.63 | 96.29 | 0:1 | 0 | 0.27 (RPO) 93.27 (O.S.) | 2.75 | n/a | 2.75 |
| Total | 935.20 | 397.04 | 538.16**** | | 237.60 | 246.57 | 291.59 | | 53.99 |

*This calculation discounts lands already in open space (O.S.) or is within a County RPO or County RPO buffer

** County guidelines require that non-native grasslands in the Ramona Grasslands area be mitigated at 1:1 (0.5:1 for the non-native grassland and 0.5:1 for raptor foraging)

*** Mitigation for this impact cannot be achieved onsite, in kind, therefore the additional mitigation will be required to be purchased offsite at a pre-approved mitigation bank or other land approved by the director of Planning and Land Use.

****This number differs from the open space subtotals depicted in the Specific Plan for this project since the Specific Plan utilizes different criteria for open space.

1.0 INTRODUCTION

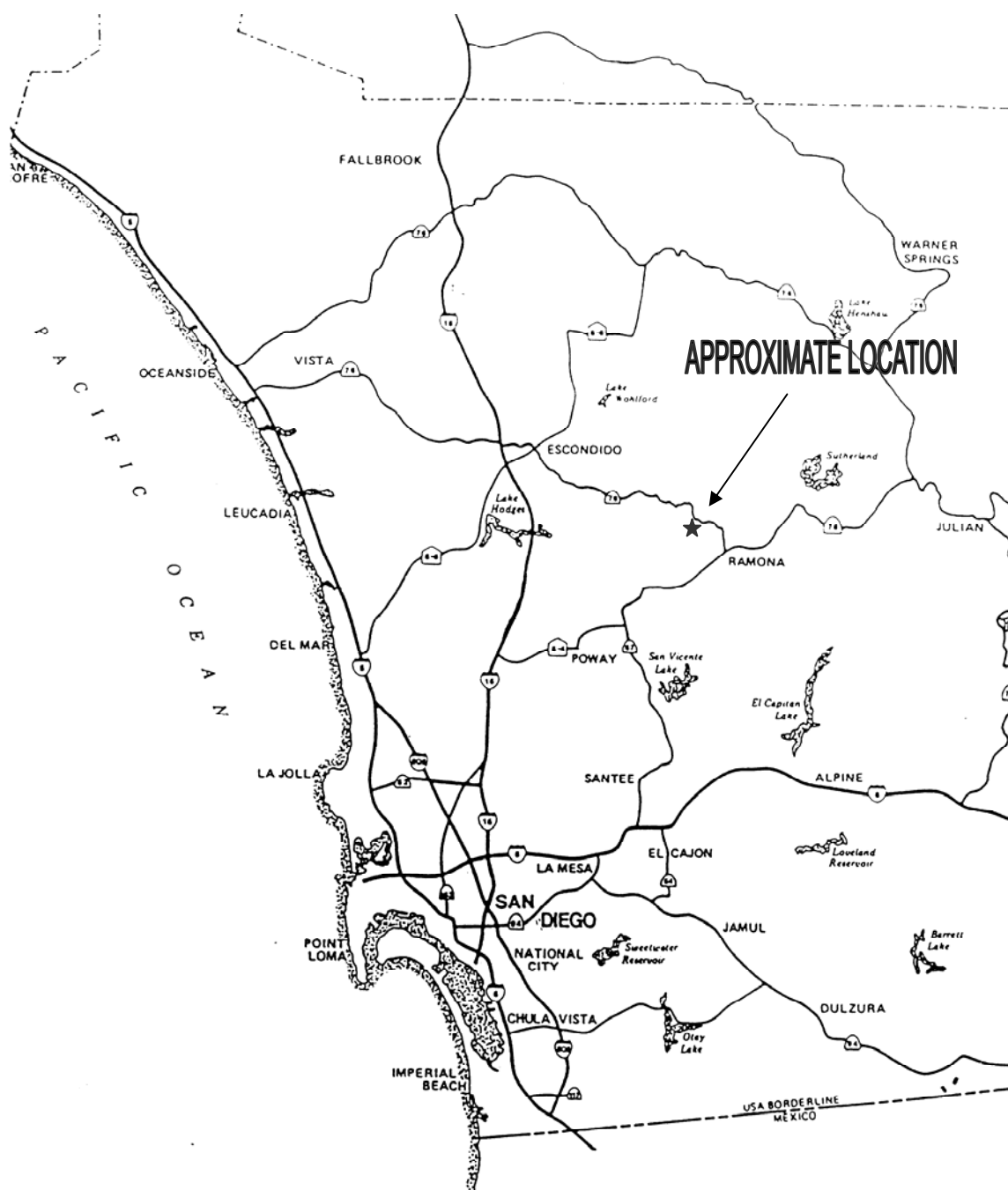
This report summarizes the results of biological surveys conducted on the 935.20 acre Montecito Ranch property in northern Ramona, San Diego County, California. The primary objectives of the survey were to assess the existing conditions of the site's biological resources and to identify the potential impacts to these resources due to future development of the proposed project.

1.1 Project Description

The Proposed Project would include the development of a rural residential community consisting of 417 single-family residential units on lots ranging in size from approximately 0.5 to 1.8 acres (Figures 1 and 2). Horses would be allowed within lots 1 through 30 in the eastern portion of the site. The Project would dedicate land for various public improvements including a historic park site, local park site (fully developed), charter high school site, and open space. The northern portion of the historic park site includes the historic Montecito Ranch House, which would be renovated by the proposed project. The southern portion of the historic park site would include equestrian staging area, as well as act as an overflow parking area for the parks and school sites. The equestrian facilities would include several 15 feet by 15 feet horse pens, an 80-foot diameter round pen, an animal wash down area, hitching posts, 100 feet by 150 feet arena with bleacher seating, a picnic area, and parking (including horse trailer parking). This area would connect to the regional trail system.

The Proposed Project includes two wastewater management options. Wastewater Management Option 1, Off-site Sewer Connection, would include the extension of a sewer main off-site to connect to the Santa Maria Wastewater Treatment Plant (WTP). Wastewater Management Option 2 is an on-site wastewater reclamation facility (WRF) to treat all on-site wastewater and utilize the reclaimed water to irrigate on-site public landscaped areas. Option 1 would result in a total of 573.8 acres of dedicated open space within the Project site and Option 2 would result in 549.1 acres of dedicated open space due to the space requirements associated with the WRF. Since a final determination as to the most appropriate approach to treatment of Project wastewater has not yet been made, Wastewater Management Option 1, Off-site Sewer Connection, is addressed equally with Wastewater Management Option 2, WRF. The Project also includes off-site roadway and water improvements to support the SPA development.

The overall objective of the Project is to provide an environmentally sensitive, residential community compatible with the rural character of the surrounding area while preserving existing natural open space (including the Ramona Grasslands), landforms, and topography. A 220.5-acre biological open space area has been set aside in the southwestern portion of the SPA property. Approximately 353.3 additional acres of the site would be designated as open space under Wastewater Management Option 1 (328.6 acres under Option 2), the majority of which would serve as additional biological open space. Following Project implementation, a total of 573.8 acres of open space (61.4 percent of the site), including 558.2 acres of biological preserve, would exist within

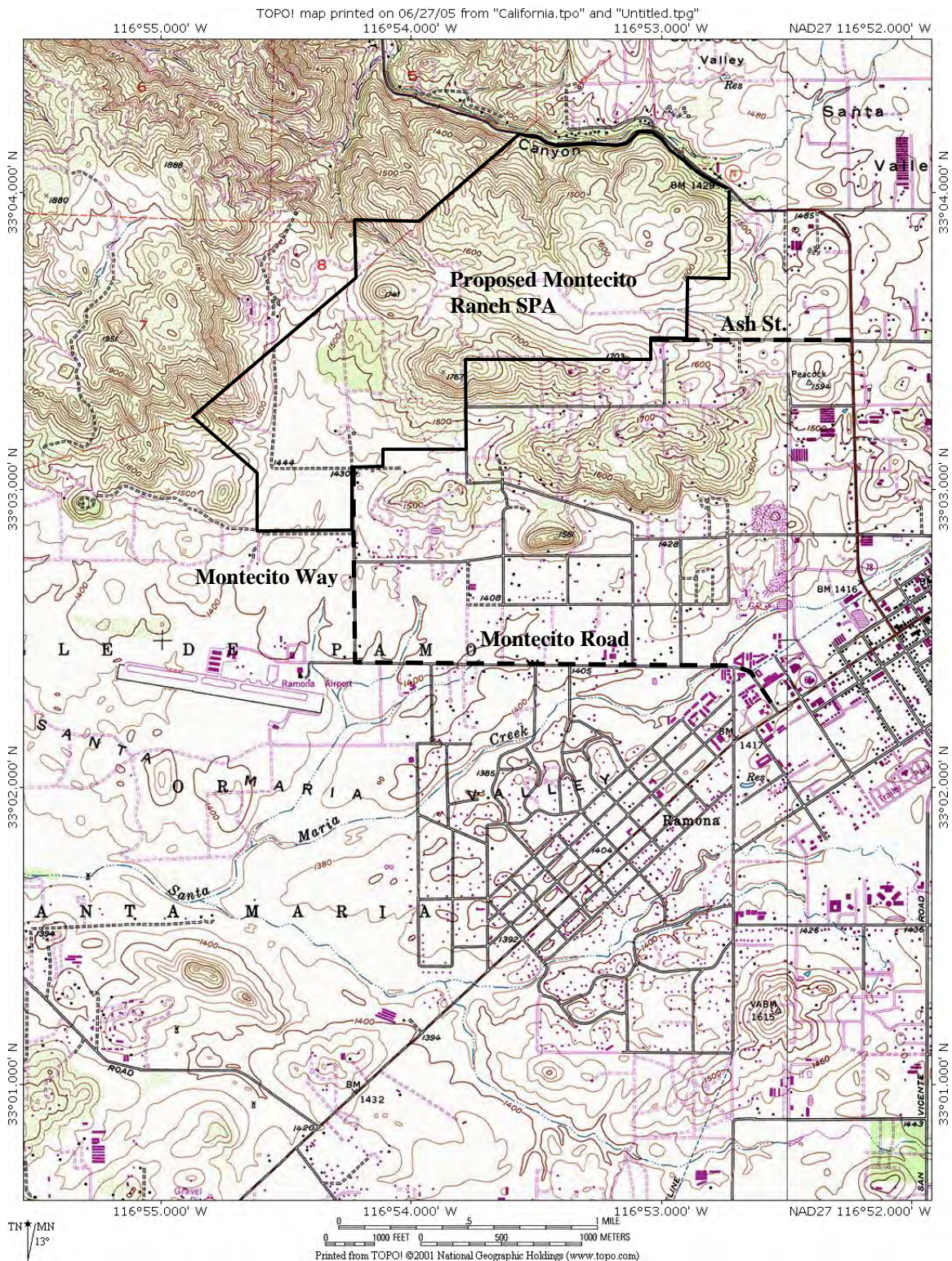


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REGIONAL LOCATION MONTECITO RANCH NO SCALE



Figure
1



the SPA boundaries under Option 1. Option 2 would reduce the biological preserve by 24.7 acres. The open space areas would include 11.1 acres (3.8 miles) of proposed equestrian/pedestrian trails. In addition, 3.1 acres (2.3 miles) of multi-purpose trails would be located within roadway rights-of-way on site and 3.4 acres (1.7 miles) of trails would occur within the residential area. Much of the designated open space area also would serve as biological open space preserve. These open space areas would include sensitive biological habitat, important archaeological resources, steep slopes, buffer areas, and other environmentally sensitive areas to create viable wildlife corridors and linkages. Development and brush management areas would not be included within the biological open space preserve. The Project also would include 4 Homeowners' Association (HOA) maintenance lots, totaling 7.9 acres. No development is proposed for these lots; therefore, they are not included in the acreage for the development footprint. Because brush management would occur within the HOA maintenance lots, these lots are not included in the on-site biological open space preserve.

The project is composed of two separate units. Unit 1 would consist of 243 single-family residential units and Unit 2 would include 174 single-family residential units. Both Units would be in varied stages of grading simultaneously. The Proposed Project would fully develop an 8.3-acre local park site and dedicate land for an 11.9-acre historic park site surrounding the existing historic Montecito Ranch House, as well as create an integrated system of multi-purpose trails. The proposed project would include renovation of the Montecito Ranch House. The house would be dedicated to the County of San Diego or cooperating group for preservation and maintenance as an interpretive center, community center or museum. The historic park site would include an equestrian staging area, as described above. Land for a 10.6-acre charter high school site also would be dedicated as part of the Proposed Project. Under Wastewater Management Option 2, the Proposed Project also would include a 0.9-acre WRF that can accommodate 110,000 gallons of wastewater per day, five storage ponds on 6.9 acres, and a 16.9-acre spray field.

Access to the proposed Montecito Ranch development would be via: (1) Ash Street from Pine Street (SR 78) and (2) Montecito Way and Montecito Road from Main Street (SR 67). To accommodate Project traffic and improve traffic flow in the vicinity, the Project would widen Ash Street, construct Montecito Ranch Road through the Project site from Ash Street at the eastern SPA boundary to Montecito Way at the southern boundary, construct on-site residential streets connecting to Montecito Ranch Road, widen Montecito Way, and widen Montecito Road from Montecito Way to Main Street.

The proposed Montecito Road would include two lanes within a 118-foot right-of-way from Ash Street at the eastern site boundary to Lot 392 within Unit 2. From Lot 392 to the southern property boundary at the terminus of Montecito Way, Montecito Ranch Road would be a two-lane road within an 80-foot right-of-way. Bike lanes would be provided on both sides of the roadway. In addition, an eight-foot-wide meandering trail would be constructed within the right-of-way on the north side of Montecito Ranch Road along its entire length. All other on-site residential streets would be two-lane roadways within private road rights-of-way with County maintenance easements.

To accommodate Project traffic and improve traffic flow in the vicinity, the Project would widen segments of Ash Street, Montecito Way and Montecito Road. In addition, to mitigate Project-related traffic impacts, improvements would be required to the intersections of Ash Street/Pine Street (SR 78), Main Street (SR-67)/Pine Street (SR 78), Montecito Road/Montecito Way, Main Street (SR 67)/Montecito Road, SR 67/Highland Valley Road/Dye Road, and SR 67/Archie Moore Road.

The Proposed Project would require construction of off-site utility improvements to provide water service to the Project. One approximately 4,000-foot (0.75-mile) long, 14-inch polyvinyl chloride (PVC) water line would be extended northerly along Montecito Way to the Project site from the existing 24-inch main in Montecito Road. A second 14-inch PVC water line would be extended from the existing 14-inch line in Pine Street, approximately 4,000 feet (0.75 mile) westerly within Ash Street to the Project site. The proposed off-site connections would be installed during construction of the proposed improvements to Montecito Way and Ash Street. In addition, a water storage tank would be installed just west of the Project site within an adjacent property. This tank would hold 1.26 million gallons under Wastewater Management Option 1 and 0.91 million gallons under Option 2. (The decrease under Option 2 is due to decreased use of potable water for irrigation.) A pipeline would connect the water storage tank to the proposed pipeline within Montecito Way. This pipeline would be installed under a 20-foot-wide access road to the water storage tank. The water storage tank and associated pipelines and roadways would disturb approximately 2.2 acres off site. The Proposed Project also would include the installation of a water booster pump station on a 10,000-square foot (0.2-acre) lot at the northwestern corner of the Montecito Road/Montecito Way intersection.

Under Wastewater Management Option 1, wastewater management for the Project would be provided by Ramona Municipal Water District and off-site sewer improvements would be required. Proposed off-site sewer improvements would consist of a sewer force main from the southwestern corner of the Project site within Montecito Way, to the Santa Maria WTP located on Sawday Street, west of the Ramona Town Center, where the wastewater from the Proposed Project would be treated, if capacity becomes available at the WTP.

Under Wastewater Management Option 2, all wastewater generated by the Proposed Project would be treated at the proposed on-site wastewater reclamation facility, which would accommodate 110,000 gallons per day of wastewater. At Project build out, an estimated 60 percent of the reclaimed water generated by the wastewater reclamation facility would be used for irrigation of the proposed on-site parks, landscaped areas along project roadways, and future school, with the remaining reclaimed water (approximately 40 percent) being distributed over the proposed 16.9-acre spray field. Reclaimed water distribution pipelines would be installed within project roadways to deliver the reclaimed water to the targeted on-site uses.

The proposed project would require the following approvals and permits:

| TABLE 1. REQUIRED PROJECT APPROVALS AND PERMITS | |
|--|---|
| Discretionary Approval/Permit | Approving Agency |
| Specific Plan Vesting Tentative Map 5250 Site Plan Grading Permit Street Vacations Execution of Irrevocable Offer to Dedicate right-of-way Major Use Permit for Montecito Ranch Development Major Use Permit for WRF (under Wastewater Management Option 2 only) Master Reclamation Plan for WRF (under Wastewater Management Option 2 only) Parcel Rezone (A70 to S88) County General Plan Amendments County Trails Master Plan Amendment Roadway Design Speed Exception for Ash Street (35 instead of 40 mph) RPO Exemption | County of San Diego |
| 4(d) Habitat Loss Permit | County of San Diego U.S. Fish and Wildlife Service California Department of Fish and Game |
| Encroachment Permit (for Pine Street and Main Street improvements and utilities connections) | Caltrans |
| Annexation to RMWD for sewer service (under Wastewater Management Option 1 only) | County of San Diego Ramona Municipal Water District LAFCO |
| NPDES General Permit for Stormwater Discharges | State Water Resources Control Board |
| NPDES Municipal Storm Water Permit Compliance | County of San Diego California Regional Water Quality Control Board |
| General Waste Discharge Permit for Groundwater Extraction Waste Discharges (if necessary) Waste Discharge Permit for WRF | California Regional Water Quality Control Board |
| Water Treatment Device Certification for WRF | California Department of Health Services |
| Emergency generators for pump stations and WRF | Air Quality Management Board |
| Section 1603 Streambed Alteration Agreement | California Department of Fish and Game |
| Section 404 Permit | U.S. Army Corps of Engineers |
| Section 401 Certification | California Regional Water Quality Control Board |

1.2 Physical Characteristics

The Montecito Ranch SPA is generally characterized by a broad valley in the central portion of the site with gently sloping terrain to the north. In addition, three distinct knolls are located on site: one in the central northernmost portion of the site; one adjacent to the northwest project boundary; and the other adjacent to the central southern project boundary. The gently sloping landform transitions with steeper topography associated with Clevenger Canyon, which is located immediately adjacent to the property to the northeast. The property is situated on a drainage divide, with the steep northward drainages emptying into Clevenger Canyon, and the gentle southwest draining canyons and valley draining into the Santa Maria Valley. Elevations on site vary from approximately 1,750 feet above mean sea level (AMSL) atop the knoll, located along the central southern property boundary, to approximately 1,420 feet AMSL in the southwestern portion of the project site.

The SPA site contains several native plant communities, including southern coast live oak riparian forest, Diegan coastal sage scrub, southern mixed chaparral, oak woodlands, and disturbed wetlands. Additionally, non-native habitats found on site include eucalyptus woodlands. Non-native grasslands can be found within the flatter portions of the property where cattle grazing or historical farming have altered the natural vegetation. Much of the steeper areas support native vegetation, with the highest quality and least disturbance occurring in the northern portion of the site. In these areas, Diegan coastal sage scrub and southern mixed chaparral are the dominant vegetation communities. Oak woodlands occur in the northern and northeastern portions of the site. Three man-made agricultural ponds also occur on the property.

According to the *Soil Survey of San Diego Area, California* (Bowman, 1973), 21 soil types occur onsite. The most common soils belong to the Cieneba series, and the Fallbrook series. The Cieneba Series consists of excessively drained, very shallow to shallow, coarse, sandy loams formed in material weathered in place from granitic rock. Cieneba soils occur in rolling to mountainous uplands with slopes of 5 to 75 percent. The Fallbrook Series consists of well-drained, moderately deep to deep sandy loams formed in material weathered from granodiorite. Fallbrook soils are on uplands with slopes of 2 to 30 percent. Other onsite soils belong to the Bonsall series, Placentia Series, Ramona series, Visalia series, and Vista series. None of the soils onsite is considered gabbroic or derived from gabbroic soils.

1.3 Onsite and Surrounding Land Uses

Immediate surrounding land uses consist of semi-rural and estate residential development to the north, east, and south, and the Lemurian Fellowship religious facility and orchards to the northwest. The 1,027 acre Davis Ranch Preserve adjoins the Montecito Ranch SPA on the south and west. This property consists

of pasturelands with limited development and is currently owned by the Nature Conservancy. The Ramona Airport lies approximately 0.5 mile south of the project site. Existing improvements within the SPA include dirt roads and the Montecito Ranch House. Portions of the SPA have been used for farming of oat hay and cattle grazing.

End of section 1.0

2.0 METHODS AND SURVEY LIMITATIONS

Biological resources of the Montecito Ranch property were investigated through field reconnaissance and literature review. Table 2 summarizes the surveys conducted onsite by REC staff. The site was surveyed for plants and animals via intensive surveys. Wildlife species were identified directly by sight or vocalizations and indirectly by scat, tracks, or burrows. Plant species were identified in the field or collected for later identification. Field notes were maintained throughout the surveys, and species of interest were mapped. Surveys focused on sensitive plant and wildlife species, but all species observed were noted. All onsite habitats were recorded, and the presence or absence of suitable habitat for sensitive species was documented.

USFWS protocol level surveys were completed for the Quino Checkerspot butterfly, California gnatcatcher, and Stephens' kangaroo rat. Habitat assessments were conducted for the Riverside and San Diego fairy shrimp, and arroyo toad.

REC biologist Catherine MacGregor conducted focused sensitive plant surveys in 2001. U.S. Fish and Wildlife (USFWS) permitted biologists Denise Moe (Permit Number TE009390-2) and Elyssa Robertson (Permit Number TE786714) conducted focused surveys for the federally listed Quino checkerspot butterfly (*Euphydryas editha quino*) in 2001. Denise Moe and Robin Church (Permit Number 812206-1) conducted focused protocol surveys for the federally listed California gnatcatcher (*Polioptila californica californica*) in 2001. Habitats onsite were assessed for arroyo toad (*Bufo californicus*), Riverside fairy shrimp (*Streptocephalus woottoni*), and San Diego fairy shrimp (*Branchinecta sandiegonesis*) in 1998 and were found to not likely support these species. Focused surveys were conducted onsite for fairy shrimp as part of an earlier study, with negative findings.

Michael J. O'Farrell and Tim M. O'Farrell, O'Farrell Biological Consulting, (Permit Number TE744707-3) conducted focused protocol surveys for the Stephens' kangaroo rat (*Dipodomys stephensi*). Michael J. O'Farrell also conducted genetic analyses of Stephen's kangaroo rat in 2002 with negative findings. Dudek and Associates also surveyed the site in 1992 and 1995 as documented in Dudek 1997. Updated Stephen's kangaroo rat surveys were conducted in September 2007 and results can be found in the Appendices of this report.

Mapping of vegetation on the project site was conducted on an aerial image with topographic overlay scaled at 1 inch equal to 375 feet. Locations of rare or sensitive plant and wildlife species were also mapped. Scientific nomenclature and common names for animal species referred to in this report follow American Ornithological Union (AOU 2000) for birds, Jennings (1983) and Stebbins (1985) for reptiles and amphibians, Jones (1982) for mammals, and Powell (1979) for insects. Scientific nomenclature for plants follows the *Jepson Manual: Higher*

Plants of California (Hickman 1993) as updated by Simpson and Rebman (2001). Agricultural production (tilling) occurred after the 2001 surveys however the site has returned too much of its original condition except for a few areas as noted in this report. Therefore, the following report is based on the current condition of the site. Survey dates are summarized in Table 2.

| TABLE 2. SURVEYS CONDUCTED ON THE MONTECITO RANCH SITE | | | | | | | |
|---|------------------------|-------------------|-----------------|------------------|-------------------|----------------------------|---|
| Date | Survey Type | Start Time | End Time | Temp (°F) | Sky | Wind (mph) | Biologists |
| 3/2/01 | QCB habitat assessment | 1000 | 1330 | 57-60° | Clear | Begin: 1-2 | Denise Moe Elyssa Robertson |
| 3/5/01 | QCB | 1045 | 1405 | 65-70° | Clear | Begin: 0 – 6.7, End: 0 – 3 | Denise Moe Elyssa Robertson |
| 3/12/01 | QCB | 1130 | 1520 | 62-63° | Clear | Begin: 5-12, End: 4 - 11 | Denise Moe Elyssa Robertson |
| 3/13/01 | QCB, Plant | 1055 | 1435 | 65-67° | Clear | Begin: 5-9, End: 0 - 8 | Denise Moe Elyssa Robertson Catherine MacGregor |
| 3/15/01 | QCB | 1310 | 1445 | 68 - 70° | Clear | Begin: 0 – 5, End: 0 – 5 | Denise Moe Elyssa Robertson |
| 3/19/01 | QCB, Plant | 850 | 1320 | 75 - 84° | Clear | Begin: 0 - 5, End: 0 – 3, | Denise Moe Elyssa Robertson Catherine MacGregor |
| 3/20/01 | QCB | 815 | 1015 | 70 - 78° | Clear | Begin: 0 - 3, End: 0 | Denise Moe |
| 3/27/01 | QCB | 900 | 1445 | 60 - 72° | Clear | Begin: 0 – 2, End: 0 – 3 | Denise Moe Elyssa Robertson |
| 3/30/01 | QCB | 930 | 1530 | 69 to 76° | Clear | Begin: 0- 3, End: 0 – 3 | Denise Moe |
| 4/10/01 | Plant | - | - | - | Clear | - | Catherine MacGregor |
| 4/12/01 | Plant | - | - | - | Clear | - | Catherine MacGregor |
| 4/17/01 | QCB | 1030 | 1400 | 72 - 80° | Clear | Begin: 0 - 3, End: 0 – 3 | Denise Moe |
| 4/18/01 | QCB | 1100 | 1240 | 70° | Partly cloudy | Begin: 0, End: 0 | Denise Moe |
| 4/27/01 | CAGN, Plant | 910 | 1200 | 60 to 71° | Clear | 0-3 | Denise Moe Catherine MacGregor |
| 4/30/01 | CAGN | 930 | 1200 | 70 to 77° | Clear | 0-2 | Denise Moe |
| 5/1/01 | CAGN | 850 | 1200 | 67 to 79° | Clear | 0-5 | Denise Moe |
| 5/15/01 | CAGN, Plant | 830 | 1200 | 57 to 77° | Overcast to Clear | 0-5 | Denise Moe Robin Church Catherine MacGregor |
| 5/16/01 | CAGN | 815 | 1125 | 64 to 80° | Clear | 0-5 | Denise Moe Robin Church |
| 5/25/01 | Plant | - | - | - | Overcast to Clear | - | Catherine MacGregor |
| 6/1/01 | Plant | - | - | - | Clear | - | Catherine MacGregor Cheryl Rustin |

| TABLE 2. SURVEYS CONDUCTED ON THE MONTECITO RANCH SITE | | | | | | | |
|---|---|-------------------|-----------------|------------------|-------------------------|-------------------|--|
| Date | Survey Type | Start Time | End Time | Temp (°F) | Sky | Wind (mph) | Biologists |
| 6/12/01 | CAGN, Plant | 825 | 1120 | 60 to 72 | Overcast to Clear | 0-5 | Robin Church Catherine MacGregor |
| 6/15/01 | CAGN | 830 | 1100 | 79 to 93° | Clear | 0-5 | Denise Moe |
| 6/22/01 | Plant | - | - | - | Overcast to Clear | - | Catherine MacGregor |
| 6/25/01 | CAGN | 645 | 1030 | 60 to 83° | Clear to Partly cloudy | 0-5 | Robin Church |
| 6/26/01 | CAGN, Plant | 700 | 1045 | 63 to 80° | Partly cloudy to clear | 0-5 | Denise Moe Catherine MacGregor |
| 7/10/01 | CAGN | 700 | 1000 | 57 to 70° | Overcast to Clear | 0-5 | Denise Moe Robin Church |
| 7/12/01 | CAGN, Plant | 700 | 1100 | 56 to 83° | Clear | 0-6 | Denise Moe Catherine MacGregor |
| 7/16/01 | Plant, Animal and Wetland | 830 | 1400 | - | Clear | - | Elyssa Robertson Catherine MacGregor Cheryl Rustin |
| 7/17/01 | CAGN, Plant, Animal and Wetland | 700 | 1000 | 55 to 78° | Clear | 0-5 | Denise Moe Elyssa Robertson Catherine MacGregor Cheryl Rustin |
| 7/19/01 | CAGN | 730 | 1100 | 60 to 80° | Clear | 0-5 | Denise Moe |
| 8/1/01 | CAGN | 630 | 900 | 60 to 76° | Clear | 0-5 | Robin Church |
| 8/3/01 | Plant | - | - | - | Clear | - | Catherine MacGregor |
| 8/9/01 | CAGN | 800 | 1100 | 70 to 80° | Clear | 0-5 | Robin Church |
| 8/31/01 | Plant | - | - | - | Clear | - | Catherine MacGregor |
| 9/6/01 | General | 800 | 920 | 58 to 62° | Overcast, partly cloudy | 0-5 | Denise Moe Catherine MacGregor |
| 9/7/01 | Plant | - | - | - | Clear | - | Catherine MacGregor |
| 9/12/01 | Plant | - | - | - | Clear | - | Catherine MacGregor |
| 9/7 – 11 /01 | SKR | - | - | - | - | - | M.J. O'Farrell and T.M. O'Farrell |
| 10/3/01 | Plant | 615 | 1123 | - | - | - | Catherine MacGregor |
| 10/11/01 | Plant | - | - | - | Clear | - | Catherine MacGregor |
| 10/15/01 | General | 935 | 1200 | 86 to 88° | Clear | 0 | Denise Moe Catherine MacGregor |
| 10/18/01 | General | - | - | - | - | - | Catherine MacGregor |
| 4/19/02 | Least Bell's Vireo Survey Offsite sewer | 845 | 930 | 61° | Clear | 0.5 – 2.2 | Cheryl Rustin |
| 5/3/02 | Wetland Survey | 1000 | 1100 | - | - | - | Catherine MacGregor |

| TABLE 2. SURVEYS CONDUCTED ON THE MONTECITO RANCH SITE | | | | | | | |
|---|--|-------------------|-----------------|------------------|----------------|-------------------|--|
| Date | Survey Type | Start Time | End Time | Temp (°F) | Sky | Wind (mph) | Biologists |
| 5/3/02 | Least Bell's Vireo Survey Offsite sewer | 1000 | 1100 | 63° | Clear | 0.5-1.2 | Cheryl Rustin |
| | | | | | | | |
| 11/13/03 | General | 955 | 130 | Cool – warm | Cloudy – clear | 0-3 | Catherine MacGregor, Cheryl Delekto, Valerie Walsh, Victor Novik |
| 6/10/04 | General Offsite (Ash Street and Montecito Way) | 0900 | 1100 | cool | clear | 0-1 | Elyssa Robertson |
| 8-29-07 through 9-02-07 | Stephens Kangaroo rat | - | - | - | - | - | Dr. O'Farrell |

End of Section 2.0

3.0 EXISTING CONDITIONS

The following sections summarize the existing biological conditions on the Montecito Ranch property and the offsite road alignment including habitats, wildlife, and sensitive resources.

3.1 Habitats on Montecito Ranch

Vegetation of Montecito Ranch has been mapped and characterized based on the land cover classifications of Holland (1986) and Oberbauer (1996). A map of the 12 vegetation communities onsite, as documented by REC biologists, is presented on Figure 3. Figures 4a, 4b, 4c, 5, 6 and 7 depict habitats and biological resources of proposed offsite improvements and discussed in Section 3.2 below. Vegetation surveys were conducted during the spring, summer, and early fall of 2001, as well as more recently in the fall of 2003. The cumulative plant list in Appendix A represents a thorough flora of the site. A total of 255 plant species were observed on the Montecito Ranch property, of which 193 (76%) are native and 62 (24%) are non-native. Many of the non-native species are concentrated in the lower areas of the site, where cattle grazing and farming have resulted in long-term disturbance.

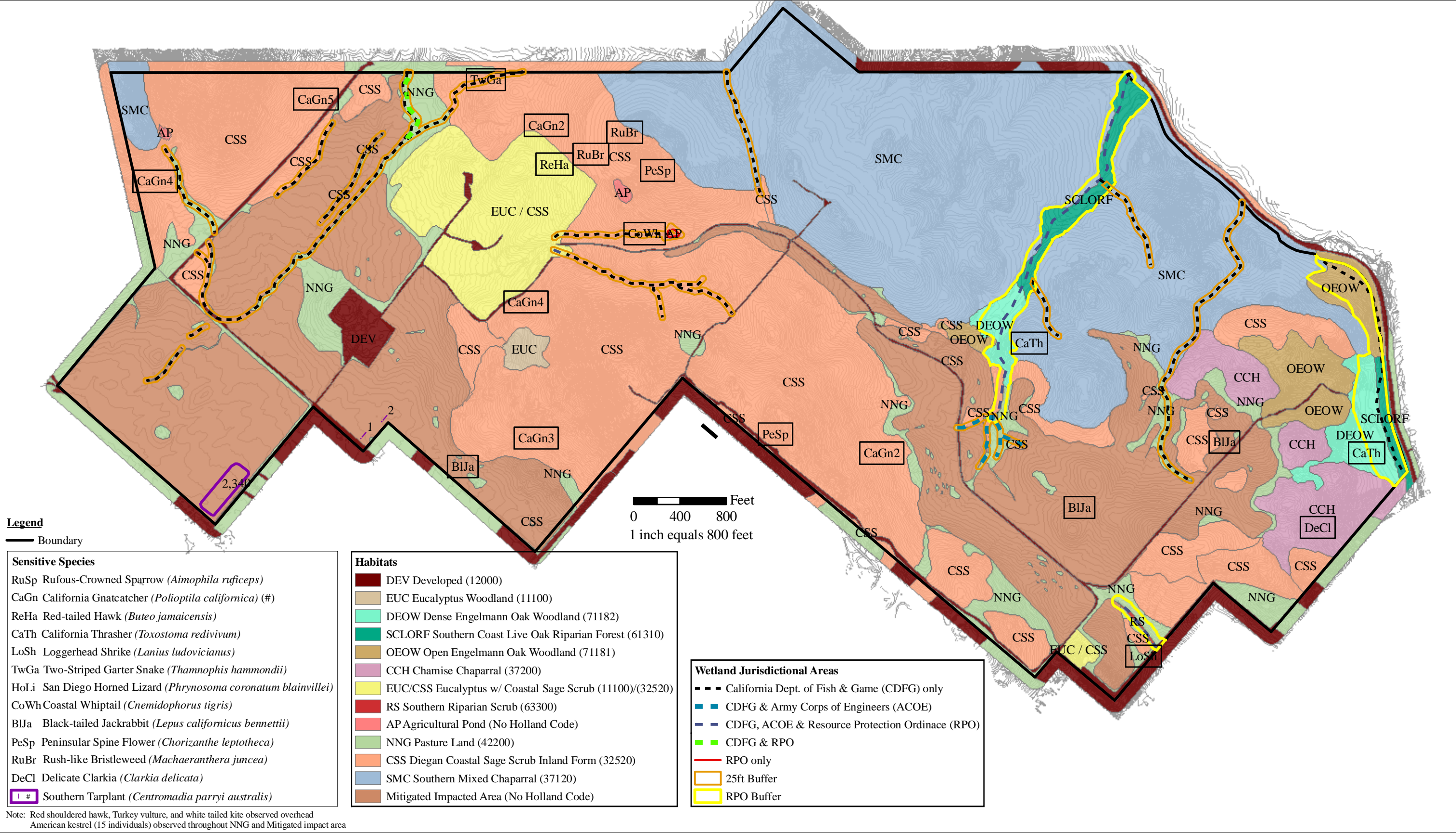
Twelve different habitat types were found onsite. Each of these habitats is discussed below.

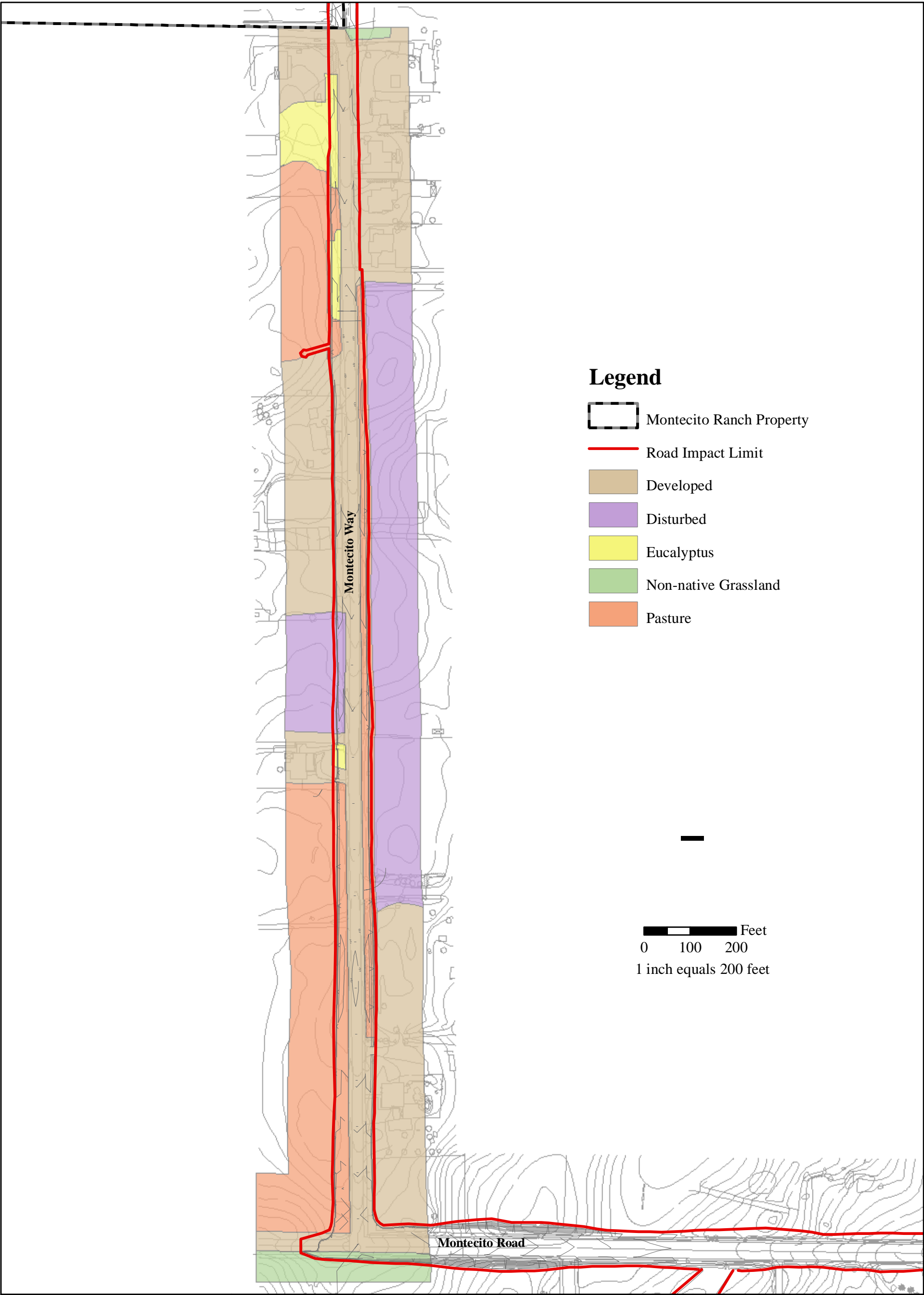
Southern Coast Live Oak Riparian Forest (Habitat Code: 61310) 10.60 Acres

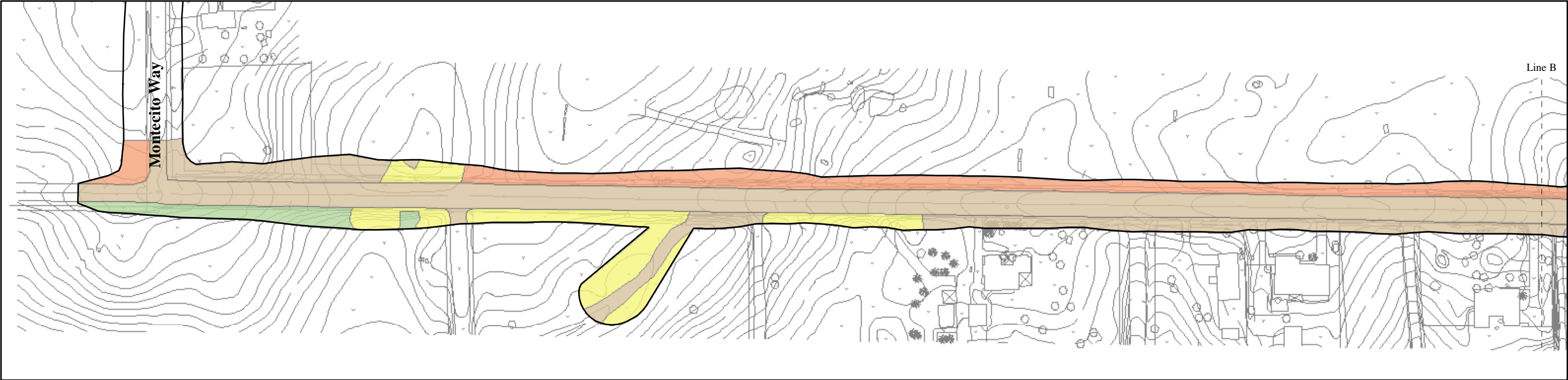
Southern Coast Live Oak Riparian Forest is represented on the Montecito Ranch property, forming closed-canopy woodland of Coast live oak (*Quercus agrifolia*.) A scattered understory of shrubs include poison oak (*Toxicodendron diversilobum*), elderberry (*Sambucus mexicana*), California rose (*Rosa californica*), and California blackberry (*Rubus ursinus*). This habitat occurs near the middle of the Montecito Ranch property and supports extensive, high quality riparian woodlands which are part of the much larger riparian system of Clevenger Canyon that runs along the northern boundary of the site (Figure 3). Other species documented in this riparian forest include mugwort (*Artemisia douglasiana*), San Diego sedge (*Carex spissa*), rush (*Juncus sp.*), woodland star (*Lithophragma affine*), coffee fern (*Pellaea andromedifolia*), meadow rue (*Thalictrum fendleri*), and desert grape (*Vitis girdiana*). Southern coast live oak riparian woodland occupies approximately 10.60 acres on the Montecito Ranch property.

Open Engelmann Oak Woodland (Habitat Code: 71181) 18.60 Acres

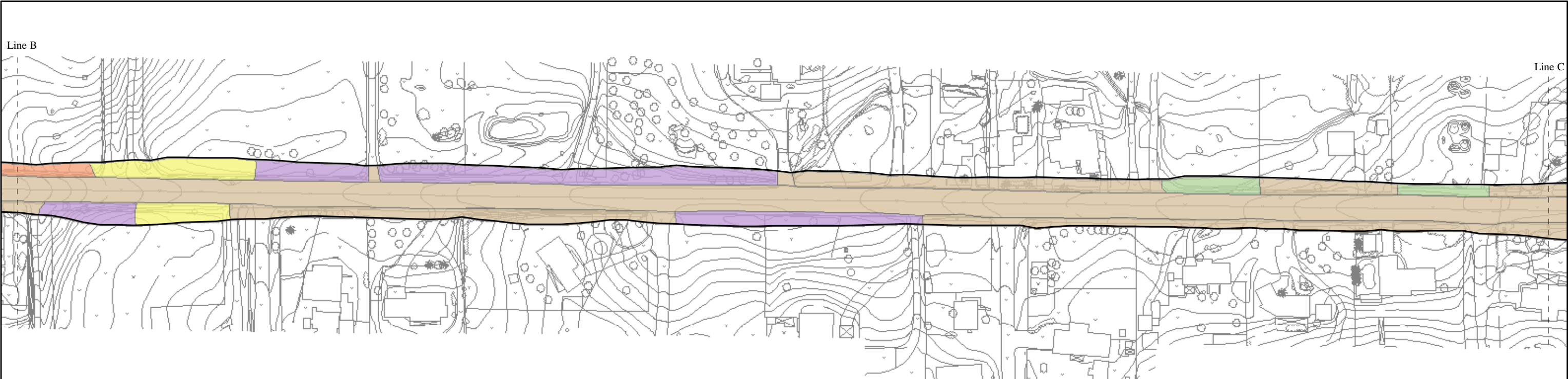
The open Engelmann oak woodland habitat occurs on slopes at or near the tops of topographic drainages onsite. This habitat type is evergreen woodland dominated by Engelmann oak (*Quercus engelmannii*) with an understory of grassland species. This habitat usually occurs on relatively moist sites of fine-



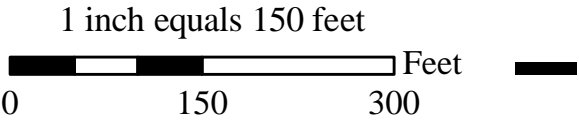




Montecito Road Widening



Consultants, Inc.

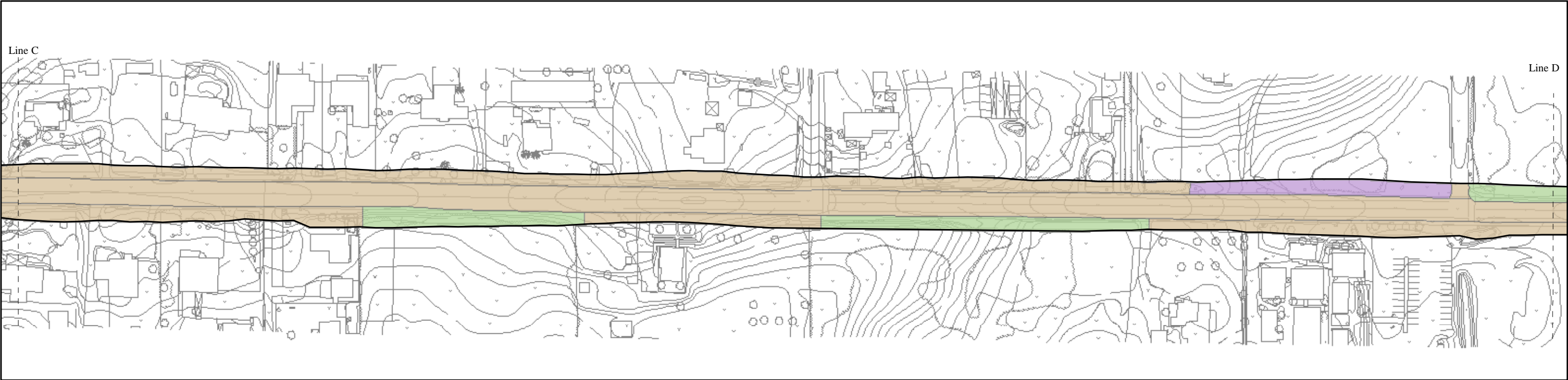


**Montecito Road Widening
Montecito Ranch**

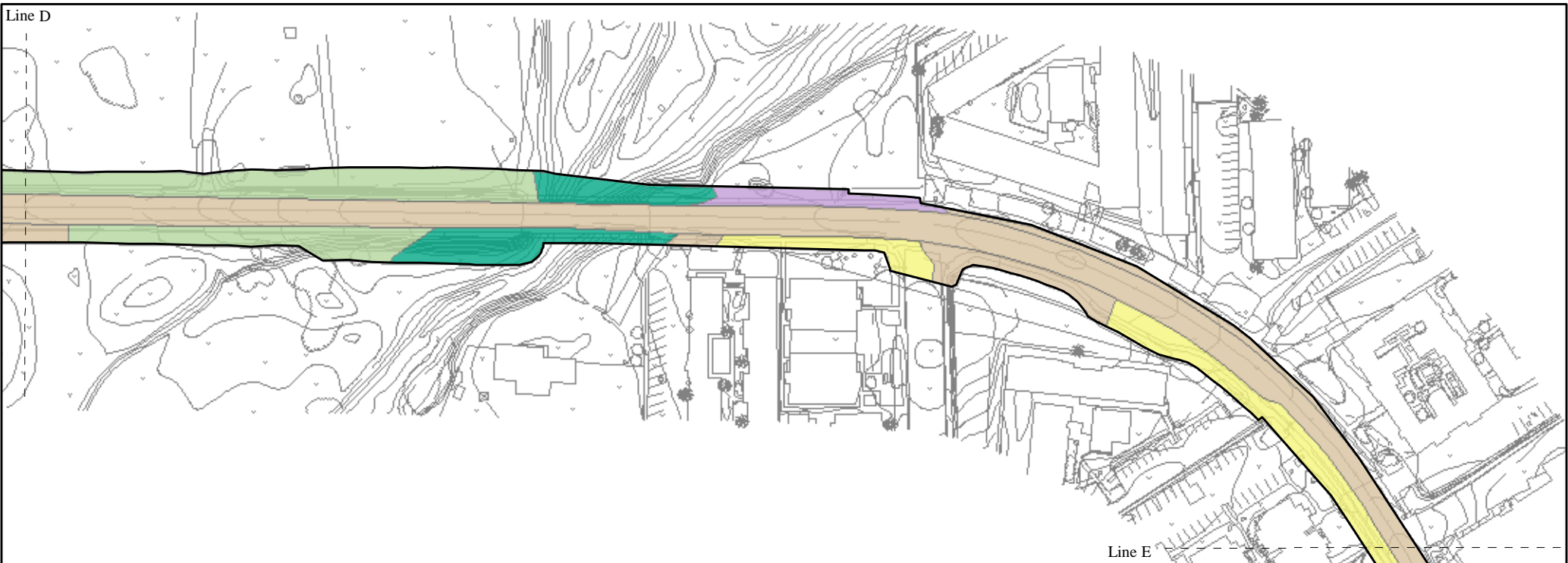
January 2008

| Legend | |
|--------|----------------------|
| --- | Matchlines |
| | Non-Native Grassland |
| | Pasture |
| | Riparian Woodland |
| | Impact Limit |
| | Developed |
| | Disturbed |
| | Eucalyptus |

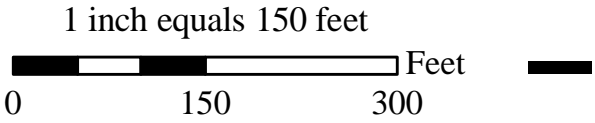
**Figure
4B**



Montecito Road Widening



Consultants, Inc.



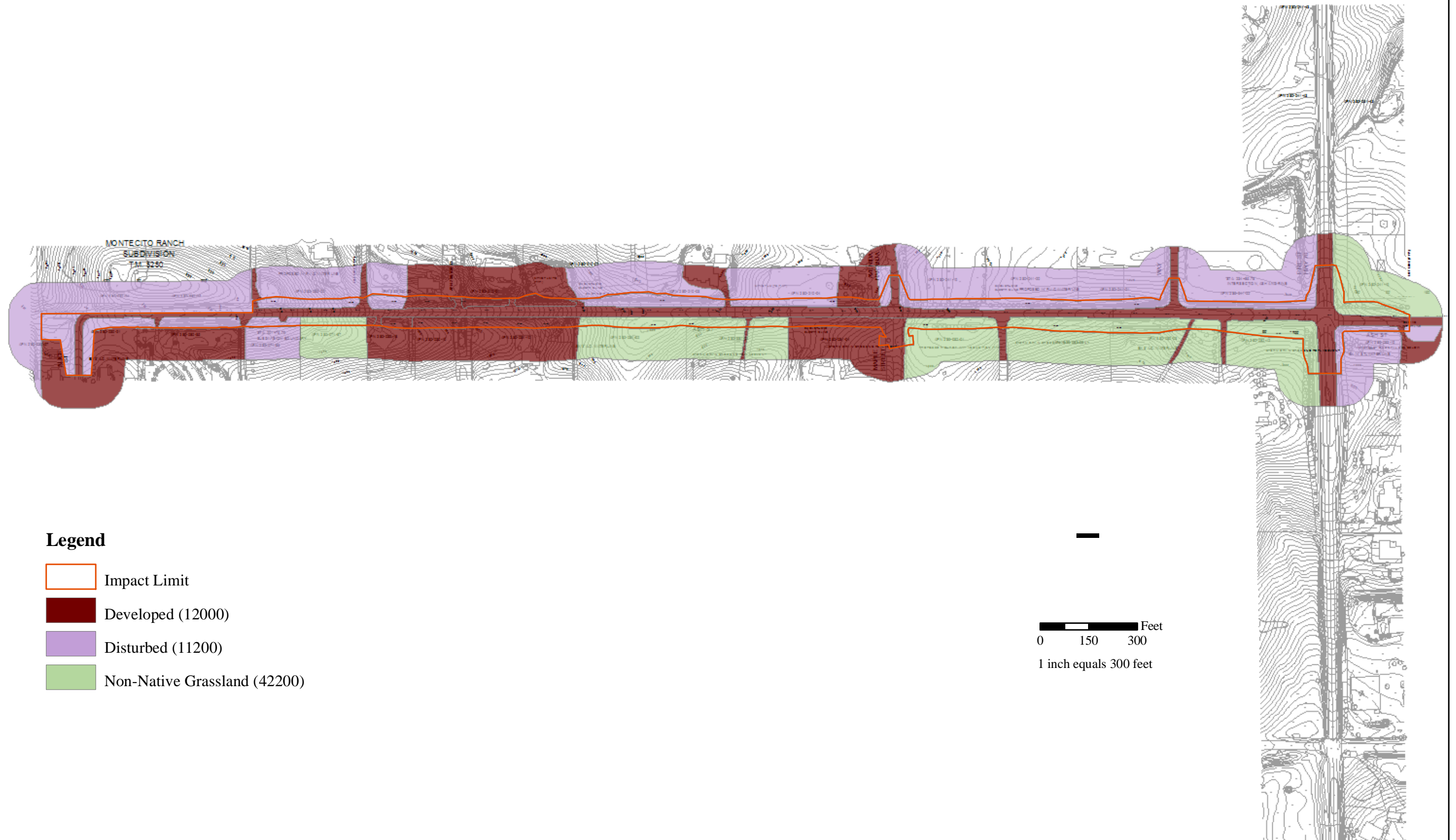
**Montecito Road Widening
Montecito Ranch**

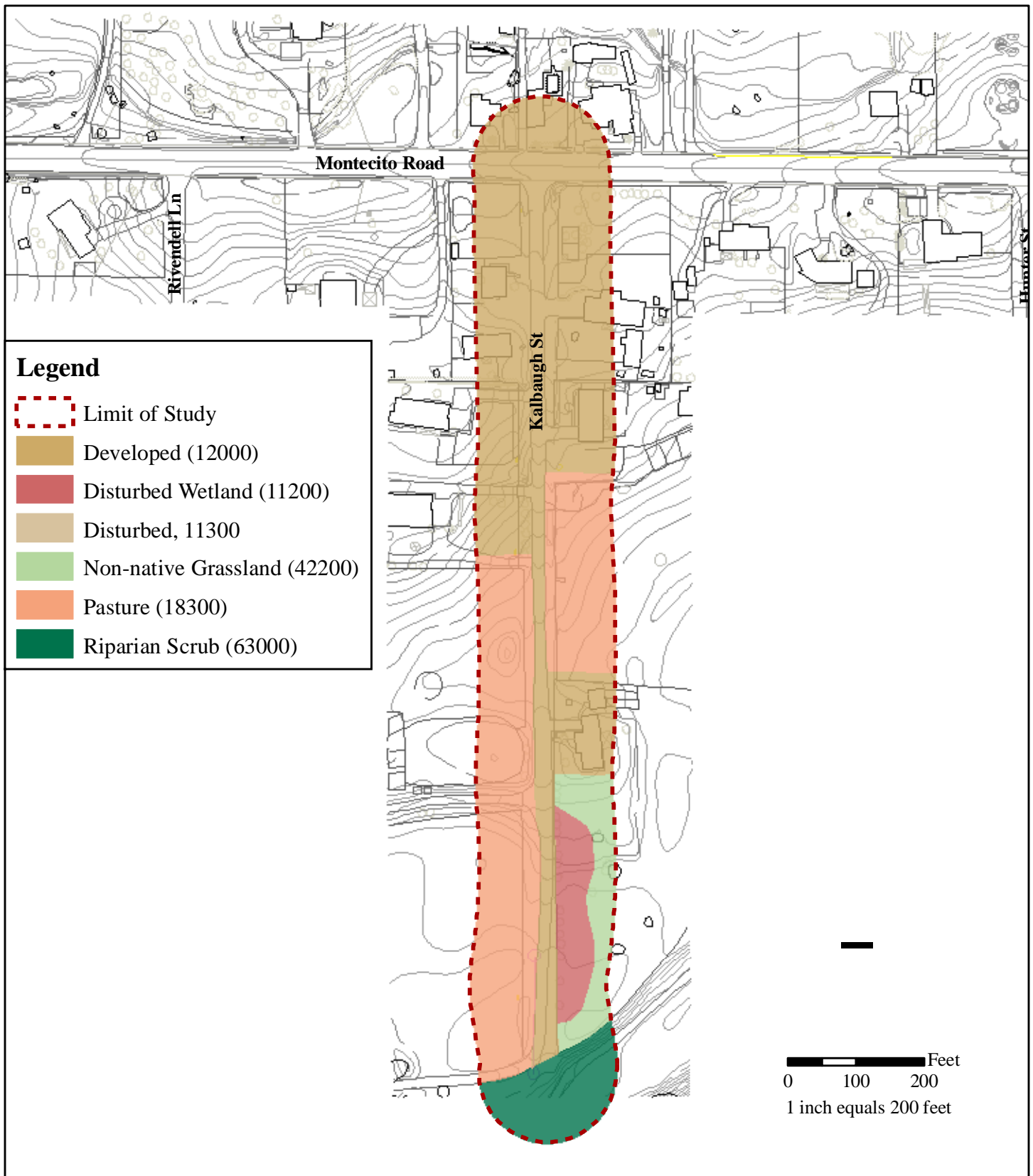
January 2008

Legend

- | | | | |
|--------|------------|-----------|----------------------|
| --- | Matchlines | Green | Non-Native Grassland |
| Brown | Developed | Orange | Pasture |
| Purple | Disturbed | Teal | Riparian Woodland |
| Yellow | Eucalyptus | White box | Impact Limit |

**Figure
4C**



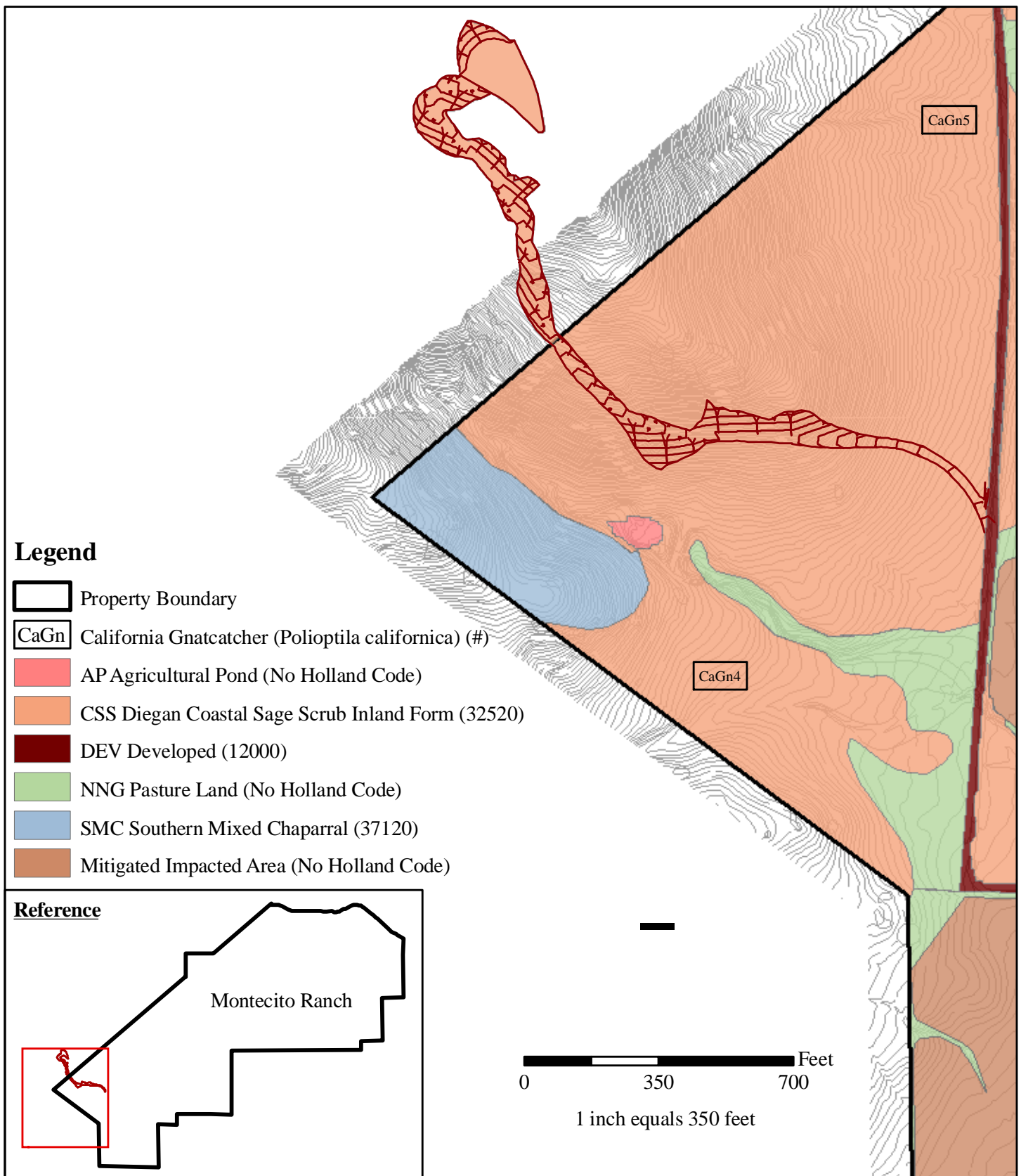


Consultants, Inc.

Offsite Sewer & Water Biological Resources Montecito Ranch

January 2008

Figure
6



Consultants, Inc.

Offsite Water Tank Montecito Ranch

Figure
7

January 2008

textured soils with gentle slopes and valley bottoms. Other characteristic species observed in this habitat onsite include sugar bush (*Rhus ovata*) and coast live oak. Brome grasses (*Bromus spp.*) dominate the understory, accompanied by white sage (*Salvia apiana*), flat-topped buckwheat (*Eriogonum fasciculatum*), and California sagebrush (*Artemisa californica*). Open Engelmann oak woodland occupies approximately 18.60 acres onsite at the far east end of the Montecito site.

Dense Engelmann Oak Woodland (Habitat Code: 71182) 13.60 Acres

Dense Engelmann oak woodland is similar to open Engelmann oak woodland, but in the dense type, coast live oak is a significant constituent, and tree density is significantly greater. This habitat is typically found in more mesic sites, especially in canyons, and can intergrade with coast live oak woodland. On the Montecito Ranch property, this habitat occurs between the open Engelmann oak woodlands and the dense southern live oak riparian woodlands along the northern drainages. Another characteristic species, poison oak, is also abundant in this onsite habitat, as are annual grasses (primarily *Bromus spp.*) and wildflowers, such as rancher's fireweed (*Amsinckia menziesii*), miner's lettuce (*Claytonia perfoliata*) and shooting star (*Dodecatheon clevelandii*). This habitat covers approximately 13.60 acres onsite.

Southern Riparian Scrub (Habitat Code: 63300) 0.30 Acres

Southern riparian scrub habitat occupies the blueline drainage that flows toward the eastern side of the site. Vegetation in this drainage includes sparse coverage consisting of mulefat (*Baccharis salicifolia*), narrow-leaved willow (*Salix exigua*), curly dock (*Rumex crispus*), and western ragweed (*Ambrosia psilostachya*). The riparian habitat type covers 0.30 acres onsite.

Disturbed Wetland (Agriculture Ponds) (Habitat Code: 11200) 0.73 Acre

Three man-made agriculture ponds, built for cattle, are categorized as disturbed wetlands. One pond is located west of the homestead, and two are located within Diegan coastal sage scrub habitat in the north central portion of the site. Species found in these wetlands include grass poly (*Lythrum hyssopifolium*), annual beard grass (*Polypogon monspeliensis*), soft chess (*Bromus hordeaceus*), and Mexican speedwell (*Veronica peregrina*). Agriculture ponds occupy 0.73 acre on the Montecito Ranch property.

Diegan Coastal Sage Scrub, Inland Form (Habitat Code: 32520) 318.93 Acres

Diegan coastal sage scrub covers slopes in the southern half of the property and part of the northwestern portion of the site. In addition, much of the understory in the larger eucalyptus woodland contains coastal sage scrub dominated by coastal sagebrush, black sage, and flat-topped buckwheat (Figure 3).

Accordingly, this eucalyptus grove is included within the calculated on-site acreage for Diegan coastal sage scrub. This larger eucalyptus grove is located in the western half of the property. It is bordered on the south and west by agricultural fields and on the north and east by Diegan coastal sage scrub.

Low shrubs dominate the Diegan coastal sage scrub community, which typically occurs on sites with low moisture availability. The dominant shrub species observed in this habitat include California sagebrush, California buckwheat, laurel sumac (*Malosma laurina*), and white sage. Matchweed (*Gutierrezia sarothrae*), monkeyflower (*Mimulus aurantiacus*), California broom (*Lotus scoparius*), and black sage (*Salvia mellifera*) occur as shrub co-dominants. Golden-yarrow (*Eriophyllum confertiflorum*), slender sunflower (*Helianthus gracilentus*), cryptantha (*Cryptantha spp.*), and sun cups (*Camissonia spp.*) were observed as herbaceous co-dominants. Cattle grazing and agricultural activity have disturbed portions of the Diegan coastal sage scrub onsite. These portions are dominated by a lower-diversity mix of flat-topped buckwheat and non-native grasses as well as herbs such as ripgut grass (*Bromus diandrus*) and filaree (*Erodium spp.*). Approximately 318.93 acres of Diegan coastal sage scrub occur onsite.

Southern Mixed Chaparral (Habitat Code: 37120) 229.10 Acres

Southern mixed chaparral occurs primarily on the north-facing slopes on the northern half of the site. Southern mixed chaparral is a fire and drought adapted community characterized by a dense growth of evergreen shrubs. Many species of this community are crown- or stump-sprouters that regenerate promptly following burns or other types of disturbances. Onsite, this habitat is limited to northern slopes in the north-central section of the site. The composition and dominant species present in this community vary with slope, soil, and exposure. Typical southern mixed chaparral species found onsite include chamise (*Adenostoma fasciculatum*), Ramona lilac (*Ceanothus tomentosus*), and toyon (*Heteromeles arbutifolia*). Honeysuckle (*Lonicera subspicata*), laurel sumac, scrub oak (*Quercus berberidifolia*), mission manzanita (*Xylococcus bicolor*), and bushrue (*Cneoridium dumosa*) occur as co-dominants. The understory is sparse and dominated by foxtail chess (*Bromus madritensis*), cryptantha, California filago (*Filago californica*), and other annuals. Southern mixed chaparral occupies approximately 229.10 acres of the Montecito Ranch property.

Chamise Chaparral (Habitat Code: 37210) 25.20 Acres

Portions of the Montecito Ranch site are comprised of chamise chaparral. Chamise chaparral is a habitat type that is a monotypic stand of chamise almost to the exclusion of other species. This habitat comprises 25.20 acres onsite and occurs adjacent to the southern mixed chaparral onsite as well as at the eastern portion of the site.

Non-native Grassland (Habitat Code: 42200) 50.22 Acres

Where grazing, agriculture, or other disturbances have degraded native vegetation, non-native grasses and weeds can become the dominant vegetation. Extensive non-native grassland areas onsite are dominated by long-beak filaree (*Erodium botrys*), red-stem filaree (*E. cicutarium*) and non-native grasses, such as oats (*Avena spp.*), ripgut, foxtail chess, Bermuda grass (*Cynodon dactylon*), ryegrass (*Lolium spp.*), and vulpia grass (*Vulpia myuros*). Non-native grasslands occupy approximately 50.22 acres of Montecito Ranch.

Eucalyptus Woodland (Habitat Code: 11100) 2.50 Acres

Three groves of eucalyptus (*Eucalyptus spp.*) trees are present on the Montecito Ranch property. A small grove of eucalyptus with an understory of non-native grassland species is located east of the larger stand of eucalyptus/Diegan coastal sage scrub grove, at the base of the prominent knoll. The third grove is located at the eastern end of the property near the eastern gate. A row of olive trees (*Olea europaea*), planted next to this Eucalyptus woodland was grouped with the eucalyptus for habitat mapping purposes. Eucalyptus woodland occupies approximately 2.50 acres onsite.

Disturbed/Developed (Habitat Code: 12000) 18.50 Acres

The developed habitat category was applied to the area immediately surrounding and including the Montecito Ranch homestead, onsite dirt roads, and perimeter fire clearings. The existing Montecito Ranch house and its yard have significantly modified the natural vegetation with ornamental plantings, buildings, and driveways. Much of the yard contains non-native grasses and weeds, and exotic species planted as ornamentals including Australian pine (*Casuarina sp.*), Eucalyptus (*Eucalyptus spp.*), ornamental pine (*Pinus spp.*), olive, ornamental prickly pear (*Opuntia spp.*) and California pepper (*Schinus molle*). Dirt roads on the property are regularly graded and are primarily unvegetated. Unvegetated firebreaks are maintained along the southern boundary and part of the northeastern boundary in the eastern half of the property. Disturbed habitat occupies approximately 18.50 acres of the Montecito Ranch property.

Limits of Recent Agricultural Clearing (disturbed) (246.92 acres)

In 2002, approximately 246.92 acres of land on Montecito Ranch underwent agricultural disking. Much of the disked land had either been previously farmed or grazed. During the 2002 disking activity, however, some native habitats identified in 2001, were inadvertently impacted. These impacts and associated mitigation have been addressed by the property owner and the county and all related issues have been resolved separately from the TM addressed in this biological technical report. Therefore, for this analysis, this habitat designation is considered disturbed.

3.2 Habitats Within Offsite Improvements

The proposed project will require improvements to the intersections of Ash Street/ Pine Street (SR 78), Main Street (SR 67)/ Montecito Road, Montecito Way/Montecito Road, SR 67/ Highland Valley Road/ Dye Road and SR 67/ Archie Moore Road. In addition, the project proposes to widen Ash Street, Montecito Way, and Montecito Road. In addition, if the onsite wastewater treatment facility is not approved an offsite sewer pipeline will be constructed and is assessed here as Offsite Wastewater Option 1. In addition an offsite water tank will be constructed west of the project site and a 10,000 square foot lot for a water booster pump station will be located at the northwest intersection of Montecito Road and Montecito Way. A summary of the habitats for each offsite option is provided in the table below.

| Table 3. Summary of Existing Habitat Acres Onsite and Offsite | | | |
|--|---------------|---------------------------|--|
| | Onsite | Water Storage Tank | Offsite Roadway Improvements Including Montecito Road, Montecito Way, Ash Street and Sewer Extension on Kalbaugh Street |
| Southern Coast Live Oak Forest | 10.60 | | |
| Southern Riparian Scrub | 0.30 | | |
| Disturbed Wetland | 0.73 | | |
| Dense Engelmann Oak Woodland | 13.60 | | |
| Open Engelmann Oak Woodland | 18.60 | | |
| Coastal Sage Scrub | 318.93 | 2.2 | |
| Southern Mixed Chaparral | 229.10 | | |
| Chamise Chaparral | 25.20 | | |
| Non-native grassland | 50.22 | | 5.0 |
| Eucalyptus | 2.50 | | 1.64 |
| Developed | 18.50 | | 11.87 |
| Mitigated/impacted area | 246.92 | | |
| Riparian Woodland | | | 0.24 |
| Cismontane Marsh | | | |
| Valley Needlegrass Grassland | | | |
| Vernal Swale | | | |
| Pasture | | | 2.10 |
| Disturbed | | | 3.89 |
| TOTAL | 935.20 | 2.2 | 24.74 |

Riparian Woodland (Habitat Code 62000)

Riparian woodland is a tall, open, streamside community dominated by facultative riparian trees that typically require water near the soil surface. The dominant plant species observed in this habitat type was arroyo willow (*Salix lasiolepis*), black willow (*Salix goodingii*), and mulefat. This habitat is highly degraded at this location due to surrounding development and proximity to yards and houses. Approximately 0.24 acres of riparian woodland, within Santa Maria Creek, occurs offsite within the Montecito Road widening alignment

Diegan Coastal Sage Scrub (Habitat Code 32520)

This habitat occurs west of the project site at the water tank location (Figure 7).

Non-native grassland (Habitat Code 42200)

In addition to the above habitats, non-native grassland habitat occurs offsite. This habitat occurs along portions of Montecito Way and Montecito Road.

Eucalyptus (Habitat Code 11100)

Eucalyptus trees occur along existing Montecito Way and Montecito Road primarily as landscaping.

Agriculture and Pasture (Habitat Code 18000 and 18310)

This habitat occurs along Montecito Road, Montecito Way and Ash Street as large lot rural yards with horses or other livestock.

Disturbed/Developed (Habitat Code 12000)

Disturbed/Developed lands include existing paved areas, dirt roads and landscaped areas. Six intersection improvements are proposed. Each of those intersections is fully developed and supports no biological resources.

3.3 Wildlife

Because of the diversity of habitat types that occur on Montecito Ranch, the site supports a rich wildlife population. Ten (10) species of mammals, fifty-six (56) species of birds, five (5) species of reptiles, two (2) species of amphibians, twenty-three (23) species of butterflies, and numerous species of other insects and invertebrates have been recorded on and offsite. A complete list of wildlife observations with common and scientific names is provided in Appendix B for both on and offsite observations.

Invertebrates

Insect species observed onsite include harvester ant (*Pogonomyrmex rugosus*), dragonfly (Suborder: *Anisoptera*), fly (Family: *Muscidae*), honeybee (*Apis mellifera*), bumblebee (*Bombus fervidus*), red ant (*Formica* sp.), and 23 species of butterflies. The most abundant butterfly species were Behr's metalmark (*Apodemia mormo virgulti*), common white (*Pontia protodice*), painted lady (*Vanessa cardui*), and Sara orangetip (*Anthocharis sara*). The majority of butterfly activity occurred in the Diegan coastal sage scrub habitat with minimal activity in the non-native grassland. This is due to the highly disturbed nature of the non-native grassland and its dominance by filaree.

Amphibians and Reptiles

Two amphibian species were identified onsite: the Pacific chorus frog (*Pseudacris regilla*) and the western toad (*Bufo boreas*). Amphibians were most prevalent adjacent to the agriculture ponds. Reptile species observed onsite include California whipsnake (*Masticophis lateralis*), coastal western whiptail (*Cnemidophorus tigris multiscutatus*), San Diego horned lizard (*Phrynosoma coronatum blainvillei*), two-striped garter snake (*Thamnophis hammondi*), and western fence lizard (*Sceloporus occidentalis*).

Birds

Birds were the most abundant and visible wildlife observed onsite. Fifty-six bird species were recorded during site surveys. The most common species observed include bushtit (*Psaltirparus minimus*), California towhee (*Pipilo crissalis*), lesser goldfinch (*Carduelis psaltria*), and western meadowlark (*Sturnella neglecta*). Raptor species observed onsite or overhead include American kestrel (*Falco sparverius*), red-shouldered hawk (*Buteo lineatus*), turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), and white-tailed kite (*Elanus leucurus majusculus*). Other sensitive birds observed onsite were the coastal California gnatcatcher (*Polioptila californica californica*), California thrasher (*Toxostoma redivivum*), loggerhead shrike (*Lanius ludovicianus*), and southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*). Bird activity was most prevalent in the undisturbed habitats of coastal sage scrub and the woodlands onsite.

Mammals

Eight native mammal species and two domestic species were observed on the property. California ground squirrels (*Spermophilus beecheyi nudipes*) were the most abundant species in the non-native grassland and developed areas. Coyote (*Canis latrans clepticus*), desert cottontail rabbit (*Sylvilagus audubonii*), desert woodrat (*Neotoma* sp.), mule deer (*Odocoileus hemionus fuliginata*), and Dulzura kangaroo rat (*Dipodomys simulans*) were also observed in Diegan

coastal sage scrub, non-native grassland, and chaparral habitats. Domestic dogs (*Canis domestica*) were observed in the Diegan coastal sage scrub and non-native grassland habitats. Evidence of horses (*Equus sp.*) was noted in Diegan coastal sage scrub habitat.

3.4 Sensitive Resources

Sensitive or special interest plant and wildlife species and habitats are those which are considered rare, threatened, or endangered within the state or region by local, state, or federal resource conservation agencies. These groups identify sensitive habitats as those which generally support plant or wildlife species considered sensitive by these resource protection agencies or groups. Sensitive species and habitats are so called because of their limited distribution, restricted habitat requirements, particular susceptibility to human disturbance, degradation due to development or invasion by non-native species, or a combination of any of these factors. Sources used for the determination of sensitive biological resources include: County of San Diego (1991, 1997, 2000), United States Fish and Wildlife Service (USFWS, 1996, 1997), California Department of Fish and Game (CDFG, 2001), and California Native Plant Society (CNPS 2001).

3.4.1 Sensitive Habitats

The County of San Diego considers nine of the twelve habitats documented onsite as sensitive. These include Diegan coastal sage scrub, oak woodlands (open Engelmann oak woodland, dense Engelmann oak woodland, and Southern Coast Live oak woodland), wetlands (riparian scrub and disturbed wetlands), non-native grasslands, chaparral (chamise chaparral and southern mixed chaparral) and rock outcrops.

3.4.1.1 Sensitive Habitats Onsite

Oak Woodlands (Open Engelmann Oak Woodland (71181), Dense Engelmann Oak Woodland (71182), Southern Coast Live Oak Riparian Forest (61310),)

Oak woodlands and oak trees are considered sensitive throughout the County. Oak woodlands are valuable for their ecological function and their aesthetic value. This habitat type has declined dramatically throughout the region. Typically, the County would consider any loss of oak trees onsite significant. The open and dense Engelmann oak woodlands onsite are especially sensitive because the California Native Plant Society and the County of San Diego classify Engelmann oaks as a sensitive species. The coast live oak riparian woodlands onsite are also especially valuable because they are associated with an onsite drainage.

Wetlands (Including Disturbed Wetlands (11200) and Southern Riparian Scrub (63300))

Wetland habitats, in general, are considered sensitive biological resources because they have been dramatically reduced in San Diego County and across the nation. Due to the regional and national loss of wetland habitats, resource agencies have a “no net loss policy” for wetlands. Wetland habitats are important because they have high levels of food and nutrients, high wildlife diversity, and they are a valuable water source for wildlife in the arid climate of southern California. This habitat’s sensitivity and its reduction is evidenced by the large number of declining bird species closely associated with, or dependent on, this habitat type for reproduction and ultimate success. Agencies that consider wetland habitats sensitive include the County, the U.S. Army Corps of Engineers (ACOE), USFWS, CDFG, and the EPA. Wetland habitat protection is specifically addressed by the CDFG Code, Sections 1600-1606 (Streambed Alteration Agreement), and the ACOE’s Section 404 permit process (Clean Water Act), as well as the County’s Resource Protection Ordinance (RPO).

Wetland habitats are considered habitats with very high value in accordance with the Resource Protection Ordinance. Wetlands are defined by the presence of hydrophytic vegetation, hydric soils, and site hydrology. According to ACOE (Environmental Laboratory 1987) methodology, all three indicators must be present to be considered a wetland. However, the County’s Resource Protection Ordinance (RPO) is more restrictive than the ACOE criteria. A habitat must only meet one of the following criteria in order to be classified as a wetland per RPO: 1) at least periodically the land supports predominantly hydrophytes; 2) the substratum is predominantly undrained hydric soils, or 3) the substratum is non-soil and is saturated with water or covered by water at some time during the growing season of each year.

Diegan Coastal Sage Scrub (32520)

The County, CDFG, and USFWS, consider Diegan coastal sage scrub habitat sensitive. This habitat regionally supports a number of state and federally endangered, threatened, and rare plants and animals that are currently listed or are being considered as possible candidates for listing. It is estimated that 70 to 90 percent of the original acreage of this habitat in the state has been lost as a result of urban expansion in coastal areas (Atwood 1990). Even if in a disturbed condition, Diegan coastal sage scrub habitat may be considered sensitive by the resources agencies since it may still serve as habitat for wildlife and may be regenerating to higher quality Diegan coastal sage scrub habitat. On the Montecito Ranch property, Diegan coastal sage scrub habitat provides foraging and nesting habitat for the sensitive California gnatcatcher. Diegan coastal sage scrub comprises 318.93 acres onsite, including degraded areas dominated by buckwheat, and areas that serve as an understory to the eucalyptus woodland.

Chaparral (Southern Mixed Chaparral (37120) and Chamise Chaparral (37200))

Chaparral habitats, including southern mixed chaparral and chamise chaparral, are considered an important resource within the County of San Diego for assemblage of a multi habitat preserve in the region.

Non-native grasslands (42200)

Non-native grasslands are becoming increasingly more important to the ecology of Southern California. This habitat type is important for native small mammals as well as for raptor foraging as discussed in more detail below in Section 3.4.1.3.

Rock Outcrops (No Habitat Code)

The County considers rock outcrops a unique microhabitat. Rock outcrops occur onsite. Rock outcrops add diversity to the vegetation communities by providing a discrete ecological niche for species not found elsewhere in the surrounding habitat. On the Montecito Ranch property, rock outcroppings support a number of fern species such as California cottonfern (*Cheilanthes newberryi*) and California polypody (*Polypodium californicum*). Also present are flowering plants with an affinity for the outcrops, such as brickellbush (*Brickellia californica*), California figwort (*Scrophularia californica*), and skunkbrush (*Rhus trilobata*). These outcrops also provide cover and potential nesting cavities for several wildlife species. Some reptile species are attracted to the sun-warmed surfaces of the rocks, and birds use boulders as perches and vantage points.

3.4.1.2 Sensitive Habitats Offsite

Riparian woodland, riparian scrub and woodland habitats are considered sensitive by the County of San Diego because of their limited distribution, high wildlife value, and valuable water resource. Other agencies that consider wetland habitats sensitive include the CDFG, USFWS, and the Army Corps of Engineers (ACOE). Wetland habitat protection is specifically addressed by the County RPO, CDFG Code Sections 1600-1606 (Streambed Alteration Agreement), and the ACOE's wetland permit process (implementing the Clean Water Act). This habitat occurs at the proposed widening of the Montecito Road bridge.

3.4.1.3 Sensitive Resources Regionally

Ramona Grasslands (Habitat Code 42200)

Non-native grassland habitat provides critical foraging area for resident and migratory raptors. The County of San Diego considers this habitat sensitive.

Onsite, this habitat occurs in fallow agriculture and pasture fields. This area was tilled as part of on-going agricultural activity in 2002. Upon review of the property in 2003, 2004, and 2005, all tilled areas have developed into non-native grassland habitat. The Montecito Ranch non-native grasslands are part of a larger, regionally important expanse of grasslands called the Ramona Grasslands.

The Ramona Grasslands (though without official defined boundaries) is generally located in the Santa Maria Valley primarily north and south of Santa Maria Creek and encompasses a series of large land holdings. The area extends across the valley floor and is generally flat to gently sloping with numerous rock outcrops scattered across the site. The general topography consists of low rises (10 to 20 feet) around these outcrops of granitic boulders separated by swales and flats.

The Ramona Grasslands consist mainly of undeveloped pastures, which support cattle and are dominated by non-native grass species. Portions of the western quarter of the Ramona Grasslands are used as effluent spray fields by Ramona Municipal Water District and therefore support denser, greener ground cover than other areas. Similarly, areas fenced to keep livestock out of Airport facilities support somewhat denser vegetation, with a higher proportion of grasses to annual forbs than grazed areas.

The Ramona Grasslands are considered an important ecosystem in the region, supporting raptor populations as well as three federally endangered species: Stephens' kangaroo rat (*Dipodomys stephensii*), western spadefoot toad and San Diego fairy shrimp. In addition to state species of special concern, the western burrowing owl (*Athene cunicularia hypugaea*) and golden eagle (*Aquila chrysaetos*), among other raptor species, occupy the grassland..

3.4.2 Sensitive Plants

Sensitive or special interest plant species are those that are considered rare, threatened, or endangered within the state or region by local, state, or federal resource conservation agencies. Sensitive plant species are so called because of their limited distribution, restricted habitat requirements, particular susceptibility to human disturbance, or a combination of these factors. Plant species have variable blooming seasons and may only be identifiable at a certain time of year.

REC biologists conducted sensitive plant surveys on and offsite in the spring, summer, and fall of 2001 and 2006. This covered the bloom seasons of the sensitive plants with the potential to occur onsite, including short-lived spring wildflowers. Sensitive plant species with the potential to occur onsite were assessed in terms of likelihood to occur based on information gathered during field surveys and from existing reports. Appendix C summarizes the evaluation of potential occurrence for sensitive plant species.

Four sensitive species were determined to have a moderate potential to occur onsite, although they were not observed during surveys. These species include, Lakeside ceanothus (*Ceanothus cyaneus*), western dichondra (*Dichondra occidentalis*), Mission canyon bluecup (*Githopsis diffusa* ssp. *filicauli*), and Ramona horkelia (*Horkelia truncata*). However, they were not observed because isolated individuals could occur deep within very dense areas of chaparral (Lakeside ceanothus and Ramona horkelia) or because the plant occurs in locations that are intrinsically difficult to observe, such as under thick shrubs (western dichondra). Five sensitive plant species were found onsite (Figure 3). These species are not state or federally listed, however, they are considered sensitive by the California Native Plant Society (CNPS 2001) and the County of San Diego and one is federal species of concern. Information on each of these species is provided below. The remaining potential sensitive species were judged to have a low or very low likelihood of occurrence, based on their habitat requirements and/or apparent absence during the extensive plant surveys.

3.4.2.1 Sensitive Plant Species Onsite

Peninsular spineflower (*Chorizanthe leptotheca*) (County Group D species)

Peninsular spineflower, an annual herb in the buckwheat family, is a CNPS List 4 species (limited distribution) with a R-E-D ranking of 1-2-2, no state or federal status, and a County Group D species. Typical habitat includes chaparral, coastal sage scrub, and lower montane coniferous forest. Threats to this species include development and invasion of non-native grasses. A population of several hundred individuals was found on a hilltop vegetated with sparse Diegan coastal sage scrub, close to the boundary with southern mixed chaparral habitat, and one individual was observed in Diegan coastal sage scrub along the southern property boundary (Figure 3).

Delicate clarkia (*Clarkia delicata*) (County Group A species)

Delicate clarkia, an annual herb in the evening primrose family, is a CNPS List 1B species (rare/threatened/endangered in California and elsewhere) with a R-E-D ranking of 2-2-2 and a County Group A species. Habitat for this delicate wildflower includes chaparral and cismontane woodland. Development and road improvement are considered primary threats to populations of this species. One population of approximately 75 individuals was found within chaparral habitat on the eastern side of the property (Figure 3).

Rush-like bristleweed (*Machaeranthera juncea*) (County Group D species)

Rush-like bristleweed is an herbaceous perennial member of the Aster family. This CNPS List 4 species (limited distribution) has a R-E-D ranking of 1-1-1 and a County Group D species. This species usually grows in chaparral or Diegan

coastal sage scrub. Two colonies of this cryptic yellow-flowered herb, containing approximately 100 and 47 individuals respectively, were found within Diegan coastal sage scrub habitat (Figure 3).

Engelmann oak (*Quercus engelmannii*) (County Group D species)

Engelmann oak, a semi-deciduous oak with a distinctive twisted growth pattern and bluish-green leaves, is a CNPS List 4 species (limited distribution) with a R-E-D ranking of 1-2-2 and a County Group D species. This species can occur in chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland habitats. Engelmann oaks are sensitive to land management practices such as fire, and their small, disjunct woodlands are highly susceptible to extirpation. Individual trees typically live from 50 to 80 years. However, a few trees in every woodland may be over 150 years old. Approximately 290 individual Engelmann oak trees were observed onsite. Engelmann oaks occur in the open and dense Engelmann oak woodlands found in the eastern half of the site (Figure 3).

Southern Tarplant (*Centromadia parryi* ssp. *australis*) (County Group A species)

Southern tarplant is an annual herb in the Aster family. As a CNPS List 1B species, this plant is considered rare/threatened/endangered in California and elsewhere. This species has an R-E-D (Rarity-Endangerment-Distribution) of 3-3-2 and currently has no state listing, but is considered a federal species of concern. This species is a County Group A species. The typical habitats for this species are marsh and swamp margins, vernal mesic valley and foothill grasslands, and vernal pools. This species is considered threatened by habitat fragmentation, urbanization, vehicles, and foot traffic. Although disturbed through agricultural activities a population of this species persists on site in the southwest corner of the property and near the southern property boundary near the ranch house (Figure 3).

3.4.2.2 Sensitive Plant Species Offsite

No sensitive plant species occur within the proposed offsite roadway improvements.

3.4.3 Sensitive Wildlife

Sensitive or special interest wildlife species are those that are considered rare, threatened, or endangered within the state or region by local, state, or federal resource conservation agencies. Sensitive wildlife species are so called because of their limited distribution, restricted habitat requirements, particular susceptibility to human disturbance, or a combination of these factors. Sources used for the determination of sensitive biological resources include USFWS (1996, 1997) and CDFG (2001). Sensitive animal species with the potential to

occur onsite were assessed in terms of likelihood to occur, based on information gathered during field surveys and from existing reports. Appendix D summarizes the evaluation of potential occurrence for these sensitive animal species. Sensitive species observed onsite are discussed below.

3.4.3.1 Sensitive Wildlife Onsite

Coastal western whiptail (*Aspidoscelis tigris stejnegeri*) County Group 2 Species

The coastal western whiptail does not have state or federal listing status, but is considered sensitive by the County of San Diego. It is usually found in open, semi-arid habitats, woodlands, and streamside areas. One coastal western whiptail was observed onsite in Diegan coastal sage scrub habitat, as shown on Figure 3.

San Diego horned lizard (*Phrynosoma coronatum blainvillei*) County Group 2 Species

The San Diego horned lizard, a regional subspecies of the widespread coast horned lizard, is classified as a federal Species of Concern. This spiny, wide-bodied lizard occurs primarily in Diegan coastal sage scrub communities. It was a common species in San Diego County until about ten years ago (Hix 1990). Factors that have contributed to its decline include loss of habitat, over collecting, and the introduction of exotic ants. In some places, especially adjacent to urban areas, introduced ants have displaced native harvester ants (*Pogonomyrmex sp.*) upon which the lizard feeds exclusively. Two San Diego coast horned lizards were observed on the Montecito property in Diegan coastal sage scrub habitat. Observation locations are provided on Figure 3.

Two-striped garter snake (*Thamnophis hammondi*) County Group 1 Species

The two-striped garter snake, a state Species of Concern, occurs along fresh water streams. This species prefers permanent streams with rocky bottoms and riparian vegetation. The individual observed on the Montecito Ranch property was found in the Diegan coastal sage scrub habitat. The location of this observation is provided on Figure 3.

California Thrasher (*Toxostoma redivivum*) No County Group status

The locally abundant California thrasher is now considered a Federal Species of Concern. This species occurs in a variety of habitats, including Diegan coastal sage scrub and riparian scrub. Approximately 35 California thrashers were observed onsite during the 2001 surveys.

Coastal California Gnatcatcher (*Polioptila californica californica*) County Group 1 Species

The California gnatcatcher is a Federally Threatened species and California Species of Concern. This small gray songbird is a resident of scrub-dominated communities in southwestern California from the Los Angeles Basin through Baja California, Mexico. California gnatcatcher populations have declined due to extensive loss of Diegan coastal sage scrub habitat to urban and agricultural uses. A series of focused protocol surveys for the California gnatcatcher was completed by USFWS permitted biologist Denise Moe (Permit # TE009390-2) and Robin Church (Permit # 812206-1). The results of the California gnatcatcher surveys are presented in the attached report, "California Gnatcatcher (*Polioptila californica*) Report for the Montecito Property" (REC 2001) (Appendix E). Approximately 20 (twenty) California gnatcatchers were observed onsite. They were distributed as follows: four 'family groups' (pair with two juveniles, pair with three juveniles, pair with two juveniles, and pair with one juvenile) and two pair. The locations of all observations are provided on Figure 3. These results are consistent with the previous focused survey conducted by Dudek and Associates, Inc. in 1998, which located five pairs of California gnatcatcher onsite.

Loggerhead Shrike (*Lanius ludovicianus*) County Group 1 Species

The loggerhead shrike is a federal and state Species of Concern that typically occurs in open areas with scattered shrubs and trees. One individual of this species was observed in Diegan coastal sage scrub habitat onsite, as shown in Figure 3.

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*) County Group 1 Species

The southern California rufous-crowned sparrow, a state Species of Concern, is usually found in Diegan coastal sage scrub, grassland, and open pine-oak woodlands, where it nests on the ground. One individual of this species was observed in Diegan coastal sage scrub habitat on the Montecito Ranch property (Figure 3).

Raptors

Although no formal listing status occurs for the raptor species observed onsite, all raptors are protected under CDFG Code 3503. Therefore, the 15 American kestrels (*Falco sparverius*) (no County group status), two red-shouldered hawks (County Group 1 species), nine turkey vultures (County Group 1 species) and 11 red-tailed hawks (*Buteo jamaicensis*) (no County group status) observed onsite would be considered sensitive.

Black-tailed Jack Rabbit (County Group 2 Species)

The San Diego black-tailed jackrabbit is both a state and federal Species of Concern. This species typically occurs in open grassland and sparsely vegetated areas. Five San Diego black-tailed jackrabbits were observed in coastal sage scrub and non-native grassland habitats on the Montecito Ranch property.

3.4.3.2 Sensitive Wildlife Species Offsite

No sensitive wildlife species were observed within the alignment of the offsite roadway improvements.

3.4.3.3 Wildlife Species with the potential to occur Onsite and Offsite

An additional 51 sensitive wildlife species, with the potential to occur on and adjacent to the project site, are identified within Appendix D. Four of these species (not including those observed or determined not likely to be found onsite), Riverside and San Diego fairy shrimp, Quino checkerspot butterfly, and the Stephen's kangaroo rat, were the subject of focused surveys onsite with negative findings and summarized below.

Riverside fairy shrimp (*Streptocephalus woottoni*) and San Diego fairy shrimp (*Branchinecta sandiegonesis*)

One agriculture pond onsite held water and provided potential fairy shrimp habitat. Dr. Chuck Black conducted a focused survey within the pond while it contained standing water. No fairy shrimp were found therein. A letter summarizing Dr. Black's observation is included with this report as Appendix F. In addition, Dudek and Associates, Inc. performed an extensive sampling of the site in 1998 (Appendix F). The Dudek survey found no fairy shrimp onsite.

Quino checkerspot butterfly (*Euphydryas editha quino*)

A focused survey for the federally endangered quino checkerspot butterfly was conducted onsite by USFWS permitted biologists Denise Moe (permit # TE009390-2) and Elyssa Robertson (permit #TE786714) in 2001. Suitable habitat, including larval host plants, nectar sources, and hilltops, are available to this species onsite. However, the site has historically been heavily grazed, under active agriculture, and continually disturbed, making it less likely for this species to occur onsite. Although a total of 23 different butterfly species were observed, no Quino checkerspot butterflies were observed on the Montecito project site. The results of the focused survey are presented in the attached report, "Quino Checkerspot Butterfly (*Euphydryas editha quino*) Report on the Montecito Property" (REC 2001) (Appendix G). These results are consistent with the previous focused survey conducted by Dudek and Associates, Inc. in 1998,

which located larval host plants, nectar sources, and hilltops but no Quino Checkerspot butterflies onsite.

Stephen's kangaroo rat (*Dipodomys stephensii*)

Dudek biologist Philip Behrends, PhD conducted a focused survey for the federally endangered Stephen's kangaroo rat in 1998. Six potential Stephens' kangaroo rats were identified in the eastern portion of the site. This report was reviewed for accuracy and inconsistencies were identified by Michael J. O'Farrell. Michael J. O'Farrell and Tim O'Farrell of O'Farrell Biological Consulting conducted an updated survey in September 2001 (Appendix H). O'Farrell found no Stephen's kangaroo rats onsite. A subsequent genetic analysis of six kangaroo rats collected on the Montecito Ranch conducted by Anthony Metcalf of California State University, San Bernardino revealed that all six specimens are Dulzura kangaroo rat (*Dipodomys simulans*). The results of the genetic analysis are included in an updated report provided by Michael J. O'Farrell and is attached (Appendix H). This survey was updated in September 2007. A single Dulzura kangaroo rat was captured consistent with proximity to shrubland and the limited amount of surface sign. As with the previous survey (O'Farrell, 2002) Stephen's kangaroo rat was absent from the site. It seemed that there was no reasonable explanation as to why Stephen's kangaroo rat was not found on the site. Based on studies conducted by Dr. O'Farrell on the Stephen's kangaroo rat at the Ramona Airport and other properties in the vicinity, it is concluded that distribution of the species is extremely limited and these animals exhibit an uncharacteristic lack of colonizing surroundings that are suitable, particularly west of Rangeland Road. The various potential movement corridors that animals could use from the airport to the project site are not suitable for this species. Furthermore, the habitat within the project site is at best marginal and completely surrounded by inappropriate habitat for this species.

Of the 51 sensitive animal species with a potential to occur onsite, eight have a high potential to occur: Harbison dun skipper (*Euphyes vestris harbisoni*), red-diamond rattlesnake (*Crotalus exsul*), nesting Bell's sage sparrow (*Amphispiza belli belli*), California horned lark (*Eremophila alpestris actia*), Cooper's hawk (*Accipiter cooperi*), northern harrier (*Circus cyaneus*), nesting white-tailed kite (*Elanus leucurus*), and San Diego desert wood rat (*Neotoma lepida intermedia*). All of the wildlife species with high potential to occur (except for Cooper's hawk) have been previously documented onsite (Dudek 1997), as discussed below.

Harbison dun skipper (*Euphyes vestris harbisoni*)

Harbison dun skipper butterfly is a non-listed species that is considered sensitive by the County of San Diego. It occurs in a series of scattered and disjunct colonies throughout western San Diego County and extends as far north as the Santa Ana Mountains of Orange County (Orsak 1977). Localities in San Diego County include the vicinity of Dulzura, Flinn Springs, Old Viejas Grade, Otay

Mountain, the northern slope of Tecate peak, the Fallbrook area, east of Valley Center, and near San Pasqual (Brown and McGuire 1983). In southern California, the butterfly typically occurs in partially shaded riparian habitats, such as oak woodlands, where a seep or spring provides perennial water for the larval host plant, San Diego sedge (*Carex spissa*) (Brown 1982). According to Dudek & Associates, Inc. (1997), the large riparian woodland that runs north-to-south through the northern central portion of the site supported a substantial population of the butterfly. No Harbison's dun skippers were observed during the 2001 surveys.

Red-diamond rattlesnake (*Crotalus exsul*)

The red-diamond rattlesnake, classified as a state Species of Concern, is a brick red to pinkish tan relative to the western diamondback (*Crotalus atrox*). It ranges from San Bernardino County south through most of Baja California, Mexico (Stebbins 1985). It occurs in desert scrub, thorn scrub, and chaparral habitats below about 1200 meters (4000 feet). A single individual of this species was observed on Montecito Ranch in 1997; however, none were observed during the extensive surveys during 2001.

California horned lark (*Eremophila alpestris actia*)

The California horned lark, a state Species of Concern, is resident in open, sparsely vegetated habitats, such as grasslands and pasturelands. Unitt (1984) indicates that this species is a common breeding resident and an abundant migrant and winter visitor in San Diego County. The California horned larks were observed by Dudek & Associates in 1997 in the open grassland/pasture habitat on Montecito Ranch. No California horned larks were observed on the Montecito Ranch property during 2001 surveys.

Bell's sage sparrow

Bell's sage sparrow is a federal and state Species of Concern. This bird is usually found in dense stands of chaparral and scrub. Ten individuals were observed onsite in coastal sage scrub habitat. This species was observed by Dudek and Associates in 1997 but not observed during later surveys.

Northern harrier (*Circus cyaneus*), Black-tailed kite, Cooper's Hawk

Raptors are considered state species of Special Concern while nesting. This includes all raptor species including Northern harrier, black-tailed kite and cooper's hawk. These species were reported from the Montecito Ranch by RECON (1987) or observed in later surveys by Dudek & Associates, Inc, but were not observed during later surveys.

Least Bell's Vireo (*Vireo bellii bellii*)

Although riparian woodland exists within the proposed offsite widening of Montecito Road, the habitat is highly degraded and disturbed due to surrounding development. In addition, based on the San Diego County Bird Atlas of 2004 (Unitt 2004) this species was not observed in Santa Maria Creek. The habitat for this species at this location is low to moderate.

San Diego Desert Woodrat

The desert woodrat, or San Diego woodrat (*Neotoma lepida* ssp. *intermedia*), is a California Species of Special Concern. This woodrat builds nests of twigs in rocky outcrops in dry scrubby habitats. This species was identified by Dudek in 1997. If woodrat nests were identified onsite, whether nests belonged to *N. lepida* or *N. fuscipes* is not clear. However, because this species was previously reported, it is assumed that at least some nests may belong to desert woodrats.

Twenty-three potential sensitive wildlife species have a moderate potential to occur and are listed as Appendix D.

End of Section 3.0

4.0 REGULATORY REQUIREMENTS

4.1 Upland Regulations

The State of California passed the Natural Communities Conservation Planning (NCCP) Act in 1991. The NCCP is broader in its orientation and objectives than the California and Federal Endangered Species Acts. These laws are designed to identify and protect individual species that have already declined significantly in number. The objective of the NCCP is to conserve natural communities and accommodate compatible land use. The pilot program is a cooperative effort between the state and federal governments and numerous private partners. The focus of the pilot program is the Diegan coastal sage scrub habitat of Southern California. This habitat is home to the California gnatcatcher, a federally threatened species, and approximately 100 other potentially threatened or endangered species. The habitat is fragmented and distributed over more than 6000 square miles encompassing San Diego, Orange, Riverside, Los Angeles, and San Bernardino Counties.

For planning purposes, some of these sub-regions are organized into “Subareas” that correspond to geographic boundaries of participating jurisdictions and/or landowners. In each subregion and subarea, a local lead agency coordinated the collaborative planning process. Working with landowners, environmental organizations, and other interested parties, the local agency oversees the numerous activities that compose the development of a conservation plan. The CDFG and the USFWS provide the necessary support, direction, and guidance to NCCP participants in these functions. The County of San Diego is participating in the NCCP and already has a Multiple Species Conservation Plan (MSCP) in place for southern portions of the County (County of San Diego 1987). The Montecito Ranch project however, does not fall within the limits of the MSCP. The county is currently drafting a “North County Subarea Plan” for the MSCP for which this property will be addressed. However, because that planning document has not yet been approved, the Montecito Ranch property must conform to the NCCP guidelines. Therefore, pursuant to the 4d rule of the Federal Endangered Species Act, impacts to Diegan coastal sage scrub are limited to 5 percent of the total acreage occurring within the County, and require a Habitat Loss Permit pursuant to Habitat Loss Ordinance 8365. In addition, project impacts will need to be assessed based on the NCCP flowchart (Appendix I).

4.2 Wetland Regulations

The Montecito Ranch project site supports a variety of wetlands/drainage areas. The County of San Diego Resource Protection Ordinance (RPO), CDFG Code 1600 Streambed Alteration Agreement, and ACOE Clean Water Act Section 404 regulate these areas. The various intermittent drainages and wetland areas were

reviewed for jurisdictional determination (Appendix J). This determination was based on the corresponding definition of each agency. Figure 3 depicts each of the drainages and the corresponding jurisdiction.

ACOE

Through implementation of the Clean Water Act, the Corps claims jurisdiction over waterways that are, or drain to, waters of the United States. The definition of “waters of the United States”, or waters, includes (but is not limited to) territorial seas; coastal and inland waters; lakes, rivers and streams that are navigable; tributaries to these waters; and wetlands adjacent to these waters or their tributaries. The jurisdictional limit of non-wetland waters (i.e. creeks and drainages) is the ordinary high water mark. The jurisdictional limit of wetland waters is the upper limit of the wetland. Delineations of wetland limits were conducted according to the procedures found in the Corps of Engineers Wetlands Delineation Manual (ACOE 1987).

The Corps wetland delineation procedure requires that a site must have wetland indicators within three parameters: vegetation, soils, and hydrology. If any one parameter does not contain a positive wetland indicator, the site is not a jurisdictional ACOE wetland.

CDFG

The California Department of Fish and Game claims jurisdiction over rivers, streams and lakes through implementation of the California Fish and Game Code Section 1600-1616. CDFG jurisdiction covers rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life; and watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. A field determination of CDFG jurisdiction is based on the presence of a channel with a bed and banks and potential riparian vegetation, at minimum. Jurisdiction usually extends to the top of bank or to the outer edge of riparian vegetation, whichever is wider.

County of San Diego Resource Protection Ordinance

The County claims jurisdiction over lands that meet the RPO’s definition of wetlands. To qualify as a wetland under the RPO, an area need only have one of the three RPO criteria: (a) at least periodically, the land supports predominantly hydrophytes, (b) the substratum is predominantly undrained hydric soil, or (c) an ephemeral or perennial stream is present whose substratum is non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system. .

Other Regulations

Migratory Bird Treaty Act

The Migratory Bird Treaty Act is a federal statute that prohibits any person to “pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, for the protection of migratory bird or any part, nest, or egg of any such bird” This statute allows the USFWS to enforce the direct “taking” of active nests. Implementation of this law is usually seen in enforcement of avoidance of bird breeding season and in avoidance of active nesting raptors.

4.3 Existing Land Onsite and Offsite Under These Regulations

Potential onsite wetlands and waters were tentatively mapped during 2001 and 2002, and investigations of specific areas were conducted on July 16 and 17, 2001 by Elyssa Robertson, Catherine MacGregor, and Cheryl Rustin of REC Consultants, Inc. The areas were visually assessed for wetland indicators described above. In certain questionable areas, ACOE wetland determinations were conducted: a soil pit was dug and the soil evaluated for color and texture, vegetation was identified, and any evidence of hydrology was noted. This information was recorded on an ACOE data sheet, and, in combination with recorded information such as mapped soils types and plant wetland indicator status, was used to determine whether the location was wetland or upland.

After wetland evaluation results were initially submitted, the County of San Diego expressed interest in a field review of the potential onsite wetlands. County biologists Dawn Dickman and Brett Solomon visited the site on February 13, 2002 and assessed areas in question with REC biologists. The results of the County’s visit were summarized in Mr. Solomon’s March 6, 2002 letter to REC. Based on the County’s determinations and Mr. Solomon’s suggestions, REC’s wetland and waters determination was updated in 2002. The RPO was updated in March of 2007. Although there were some changes to the RPO, no areas that were previously determined not to be RPO would now be considered wetlands.

Jurisdictional Waters/Wetlands Onsite

A jurisdictional wetlands and waters map is provided as an attachment to this report. Wetland and drainage types found onsite included ditches in uplands (CDFG), disturbed depressional wetlands (potential ACOE, RPO, CDFG), agricultural ponds (ACOE and/or RPO), and waters of the US (ACOE).

The following table summarizes the acres of jurisdictional waters, wetlands and disturbed wetlands that are on the Montecito Ranch property. The locations of these drainages are shown on Figure 3.

| Table 4. Summary of Jurisdictional Acres Onsite | | | |
|--|----------------------|--|--|
| | ACOE | CDFG | RPO |
| Wetlands | 0.5 | 0.8 acres (riparian scrub and agriculture ponds) | 3,875 linear feet of waters considered wetlands under RPO, 0.8 acres (riparian scrub and agriculture ponds) |
| | | | |
| Waters | 5,150 linear feet | 22,715 linear feet | |

Jurisdictional Waters/Wetlands Offsite

The proposed Montecito Road widening will cross Santa Maria Creek. The following table summarizes jurisdictional waters and wetlands within the Montecito Road widening alignment.

| Table 5. Summary of Jurisdictional Acres Offsite | | | |
|---|-----------------------------|-----------------------------|------------------------|
| | ACOE | CDFG | RPO |
| Wetlands | 0.24 acre riparian scrub | 0.24 acre riparian scrub | 0.24 riparian scrub |

Multiple wetlands and drainages falling under the jurisdiction of one or more of these agencies were documented onsite and are depicted on Figures 3, 4b and 8.

End of Section 4.0

5.0 IMPACTS ANALYSIS

This section addresses potential direct, indirect, and cumulative impacts to biological resources that would result from implementation of the proposed project, and provides analyses of significance for each potential impact.

Guidelines for Significance

The project would have a significant adverse biological effect if any of the following occur as a result of a project-related component:

Sensitive Habitats

1. Any component of native or naturalized habitat would be removed through grading, clearing, and/or other construction activities.
2. The project would impact County-defined wetlands, including but not limited to removal of associated vegetation; grading; obstruction or diversion of water flow; change in velocity or siltation rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause change in species composition, diversity, or abundance.
3. The project does not conform to the requirements regarding wetlands, wetland buffers or sensitive habitat lands as outlined in the Resources Protection Ordinance (RPO).

Sensitive Species

4. Direct, indirect and/or cumulative impacts may reduce the local population of a plant species listed as federal or state endangered or threatened, or as County Group A or B, by more than 20 percent, or cause impacts that may be considered detrimental to the regional long-term survival of such listed species. Impacts detrimental to the regional long-term survival of a species would be considered potentially significant if:
 - a. Impacts would occur to a local population that is regionally significant;
 - b. The site supports a core block of habitat or linkage that is critical to the species' survival; or
 - c. Impacts to individuals on the site would interfere with regional conservation efforts or goals for the species.
5. Direct, indirect and/or cumulative impacts may reduce the estimated local population of an animal species listed as federal or state endangered or threatened or Species of Special Concern, or as County Group I, by more than 20 percent, or cause impacts that may be considered detrimental to the regional long-term survival of the

species. Impacts detrimental to the regional long-term survival of a species would be considered potentially significant if:

- a. Impacts would occur to a local population that is regionally significant;
- b. The site supports a core block of habitat or linkage that is critical to the species survival; or
- c. Impact to individuals on the site would interfere with regional conservation efforts or goals for the species.

6. Direct, indirect and/or cumulative impacts may occur that may be detrimental to the regional long-term survival of a Group II animal or Group C or D plant species as listed by the County. Impacts detrimental to the regional long-term survival of a species would be considered potentially significant if:

- a. Impacts would occur to a local population that is regionally significant;
- b. The site supports a core block of habitat or linkage that is critical to the species survival; or
- c. Impacts to individuals on the site would interfere with regional conservation efforts or goals for the species.

7. Grading, clearing, and/or construction would occur within the following distances and within the following time periods for one or more of these species:

| Species | Distance | Breeding Season |
|------------------------|--------------------------------|--------------------------|
| Coastal cactus wren | 300 feet from occupied habitat | February 15 to August 15 |
| California gnatcatcher | 300 feet from occupied habitat | February 15 to August 30 |
| Nesting Raptors | 300 feet from nest | February 15 to July 15 |

8. Substantial raptor foraging habitat (e.g. Ramona Grasslands) would be removed.
9. A block of habitat considered essential to the regional biological environment would be eliminated or substantially degraded such that it no longer provides the same function or value.

Wildlife Corridors and Edge Effects

10. Activities within or adjacent to corridors, linkages, or other areas utilized for wildlife movement would:
 - a. Prevent wildlife from accessing areas considered necessary to their survival;
 - b. Restrict wildlife from utilizing their natural movement paths;

- c. Further constrain a narrow corridor by reducing width, removing available vegetative cover, creating edge effects, or placing barriers in the movement path; or
 - d. Create artificial corridors that do not follow natural movement corridors.
11. Onsite or offsite habitat would be subjected to substantial edge effects, including:
- a. Post construction noise levels in excess of 60 dB during daytime hours and 50 dB during nighttime hours within Diegan coastal sage scrub occupied by coastal California gnatcatchers;
 - b. Artificial light adjacent to open space must be in conformance with the County of San Diego Light Pollution Code ;
 - c. Potential for unauthorized encroachment of any kind, including but not limited to clearing within preserved areas and unauthorized pedestrian, equestrian, or off-road vehicle traffic;
 - d. Degradation of the habitat through unrestrained domestic pets or invasive plants; or
 - e. Water runoff causing a change in natural moisture levels and/or increasing the spread of pollution and pesticides.

Regulations

- 12. The project does not conform to the goals and requirements of the Habitat loss Permit (HLP) Ordinance or Natural Community Conservation Plan (NCCP).
- 13. The project does not conform to the requirements of the County Grading Ordinance.
- 14. The project does not conform to the goals and requirements of applicable federal or state regulations, including but not limited to the federal Endangered Species Act, Migratory Bird Treaty Act, Bald Eagle Protection Act, Clean Water Act, Porter Cologne Water Quality Act, and the California Fish and Game Code.

Guideline Sources/Methodology

The identified guidelines are based on Appendix G of the State CEQA Guidelines, County regulations, State and Federal laws and regulations, the County Resource Protection Ordinance (RPO), the Ramona Community Plan and other County guidance, as described below.

The removal of native or naturalized habitat through project-related activities, as described in Guideline No. 1, would directly affect habitat acreage and plant/animal species located therein, as well as affecting potential associated resources/uses such as species diversity, foraging, breeding and access. Such habitats impacts are addressed in CEQA Guidelines Appendix G, as well as the County RPO.

Impacts to wetlands, as discussed in Guideline Nos. 2 and 3, can have widespread ramifications beyond the immediate loss of sensitive habitat. The loss of wetlands, for example, can affect the riparian species located therein, as well as upland species, which use wetlands as a source of water and as access corridors. Additionally, even minor impacts to wetlands can result in substantial changes in downstream hydrology and/or water quality, with indirect effects therefore not necessarily confined to the area of project related activities. Impacts to wetlands are regulated by the California Department of Fish and Game and the U.S. Army Corps of Engineers. Finally, the project is required to be in conformance with applicable County standards related to maintaining the viability of sensitive habitats, including the noted RPO criteria on wetlands and associated buffers. Non-compliance would result in a project that is inconsistent with County standards.

Analyses of potential impacts to applicable plant and animal species conducted during creation of the MSCP concluded the individual populations of most MSCP species could remain viable if no more than 20 percent was removed. Accordingly, Guideline Nos. 4 and 5 identify this criterion for applicable species including: (1) plant species listed as federal or state endangered or threatened, or listed as County Group A or B; and (2) animal species listed as federal or state endangered, threatened or species of Special Concern, or listed as County Group I. In addition, impacts to less than 20 percent of individual plant and animal populations can also potentially be detrimental to regional long-term species survival, with related criteria therefore included in Guideline Nos. 4 and 5. It should also be noted that determining accurate estimates of given animal populations may be more difficult than generating similar estimates for plant populations. Accordingly, the "detrimental to regional long-term survival" criteria should be used (rather than the "20 percent" criteria) in cases where the estimate of an animal population is questionable.

The Group C and D species identified in Guideline No. 6 are thought to be in decline, although not to the extent that extirpation or extinction is imminent. Because these species are often prolific within suitable habitat, standards based on protection of such habitats (as outlined in Guidelines Nos. 1 through 3, among others) are generally adequate to protect Group C and D species. Due to the generally declining nature of these species (and associated habitats), however, some instances may occur where project-related impacts may be detrimental to their regional long-term survival. Accordingly, the criteria identified in Guideline No. 6 are included to ensure adequate protection of Group C and D species where circumstances warrant.

The criteria identified in Guideline No. 7 are intended to address the potential loss of offspring for particularly sensitive avian species. Any direct or indirect impacts that might affect the nesting success of these species would be considered significant, with the described buffer distances and breeding season

dates derived from various studies completed for birds in San Diego County (and generally accepted by the scientific community). Furthermore, nesting raptors and coastal California raptors are protected by the U.S. Fish and Wildlife Service through the Migratory Bird Treaty Act and the federal Endangered Species Act, respectively. The checklist in Appendix G of the CEQA Guidelines indicates a potential significant impact if a project would “impede the use of native wildlife nursery sites.”

Raptor species regularly use both native and non-native grassland habitats for foraging. These species are protected under the Migratory Bird Treaty Act. The 8,000 acre Ramona Grasslands referenced in Guideline No. 8 are believed to represent one of the few remaining large areas of native grassland in coastal southern California. Conservation planning for this area is currently underway with partners such as the County of San Diego, California State Parks, the California State Water Resources Control Board, the State of California Resources Agency, the U.S. Fish and Wildlife Service, the Wildlife Conservation Board, and the Nature Conservancy as well as local partners like the Wildlife Research Institute, the Conservation Biology Institute, and the Ramona Community Planning Group. These organizations and agencies have identified the Ramona Grasslands as a regionally important resource for native habitat preservation and raptor foraging that should be protected.

Guideline No. 9 is associated with the identification of regionally important habitat blocks in sources such as the NCCP and the Ramona Community Plan (e.g. Resource Conservation Areas). This guideline is intended to protect both the function and value of such individual habitat areas from project-related development, and to maintain the contribution of such areas to the regional biological environment.

The criteria related to wildlife movement corridors identified in Guideline No. 10 are intended to protect such areas due to their critical role in species survival. CEQA Guidelines Appendix G indicates that a project could have a significant impact if it would “interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors.” Wildlife movement corridors and linkages accommodate a number of essential activities for species viability, including foraging, juvenile dispersal, genetic flow, migration and colonization. Without adequate movement areas to provide for these ecological needs, all other efforts to protect wildlife are undermined and the probability of species extirpation and eventual extinction is substantially increased. Because of the importance of adequate wildlife movement corridors and linkages, they have been subject to substantial analysis in conservation biology literature. Despite this intensive study, however, universally accepted standards for maintaining corridors have not been generated due to the inherent variability in regional and local biological conditions and requirements. Optimal criteria for individual wildlife movement areas are instead based on site-specific factors, such as function (e.g. to

accommodate regional linkage or local movement), individual species needs and the type and quality of habitats present. The criteria identified in Guideline No. 10 incorporate described use of site-specific factors, pursuant to the principles established by the conservation biology community.

The criteria identified in Guideline No. 11 are intended to protect open space from edge effects related to development, with such effects potentially extending several hundred feet into open space preserves. Such effects are addressed through the NCCP and can result in significant direct changes to species composition, diversity and abundance, as well as indirect effects that can vary widely depending on the nature of development and adjacent resources. Noise and artificial lighting, for example, can affect foraging and breeding habitats of all types of species, including moths (an important prey source for bats), nesting birds and nocturnal mammals. Edge effects can also adversely impact the availability of resources such as water or prey species and can change habitat suitability by altering (for example) moisture or vegetation conditions. Due to their potential to affect large areas of preserved open space, edge effects have been subject to substantial analysis in multiple species recovery plans, reports, technical journals and scientific conferences. Similar to the discussion provided above for Guideline 10, however, universally accepted standards for addressing edge effect have not been generated due to the variability in site-specific conditions. The criteria identified for potential project-related edge effects in Guideline No. 11 were, therefore, generated on the basis of both local conditions and commonly accepted practices in the biological community.

Guideline 12 is intended to address applicable goals and requirements under the County HLP Ordinance 8365 and related NCCP. The NCCP was enacted by the state of California in 1991, and is generally intended to conserve natural communities and accommodate compatible land uses. The Southern California Coastal Sage Scrub NCCP was the first effort of this program (with related guidelines adopted in 1993), and authorized a total interim Diegan coastal sage scrub (DCSS) habitat loss of five percent (based on calculations of then existing habitat acreage by an established Scientific Review Panel). As a participant in the NCCP program, the County is the local jurisdiction in the project area with authority to issue an HLP and correspondingly allow “take” of the federally listed coastal California gnatcatcher, pursuant to Section 4(d) of the federal Endangered Species Act. An HLP is required for parcels located outside of the MSCP and must be issued prior to issuance of a Brushing and Clearing Permit, Grading Permits or Improvement Permits in lieu of Grading Permits. The County has an MSCP Plan in place for the southern portions of the county, although the proposed project site is not within the limits of this plan. While a “North County Subarea Plan” is currently being drafted for areas in northern San Diego County that include the project site, it has not yet been approved and the proposed project must therefore conform to the NCCP and the HLP Ordinance Guidelines.

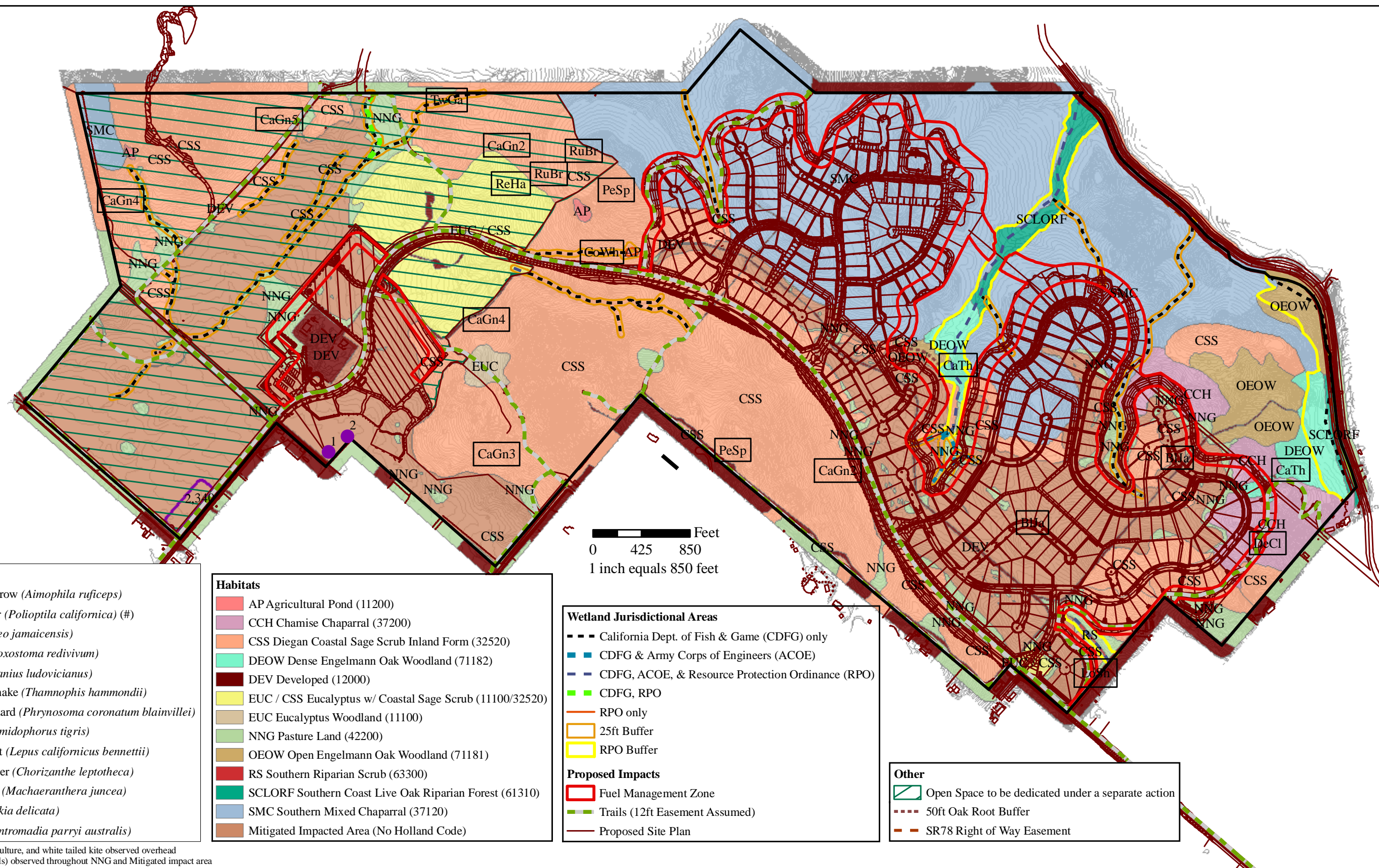
Guideline No. 13 is intended to address applicable goals and requirements of the County Grading Ordinance. Compliance with the Grading Ordinance is required and is related to biological resources when natural vegetation is cleared.

All of the federal and state requirements identified in Guideline No. 14 include goals and objectives intended to protect (among other issues) sensitive species, habitats and related resource values such as water quality. Many of these goals and objectives are addressed either directly or indirectly in elements of Guideline Nos. 1 through 12. Compliance with the referenced laws and regulations is required and is related to biological resources. The agencies responsible for enforcing these laws and regulations are responsible agencies with respect to this EIR, including the U.S. Fish and Wildlife Service, California Department of Fish and Game, California Regional Water Quality Control Board and U.S. Army Corps of Engineers. These agencies and/or laws and regulations they enforce are specifically referenced in the CEQA Guidelines, Appendix G, which indicates that impacts to the biological resources protected by these agencies may constitute a significant environmental impact.

5.1 Direct Impacts

Direct impacts are immediate impacts resulting from the permanent removal of habitat. Direct impacts were quantified by overlaying the limits of project, limits of each parcel, limits of grading, trails, and fuel management zones on the biological resources map of the site. For purposes of this assessment, all biological resources within the limits of grading for development, trails, or within the fuel modification zones are considered 100 percent lost. In addition, numerous trails are proposed. Trails that are not already within the proposed development (i.e. within road easements or internal to the housing development) are considered directly impacted for a width of 12 feet.

Direct impacts to vegetation communities onsite are presented in Table 6. Figure 8 shows the biological resources overlain with the project development envelope.



IMPACT MAP
Montecito Ranch

Figure
8

| TABLE 6 HABITAT ACREAGE AND ANTICIPATED IMPACTS ON THE MONTECITO RANCH ONSITE | | | | |
|--|-------------------------------|--|---|------------------------------------|
| Habitat Type with Habitat Code | Total Acres Onsite | Direct Impacts | Acres not Directly Impacted | % of Acres Impacted |
| Southern Coast Live Oak Riparian Forest (61310) | 10.60 | 0 | 10.60 | 0% |
| Open Engelmann Oak Woodland (71181) | 18.60 | 0.39 (includes impacts to 0.11 acre of 50 foot of buffer impact) | 18.21 | 2.1 % |
| Dense Engelmann Oak Woodland (71182) | 13.60 | 0.93 (includes impacts to 0.14 acre of 50 foot buffer impact) | 12.67 | 6.8 % |
| Southern Riparian Scrub (63300) | 0.30 | 0 | 0.30 | 0% |
| Disturbed Wetland (Ag Pond) (11200) | 0.73 | 0 | 0.73 | 0% |
| Diegan Coastal Sage Scrub (32520) | 318.93 | 69.31 | 249.62 | 21.0 % |
| Southern Mixed Chaparral (37120) | 229.10 | 123.27 | 105.83 | 54.0 % |
| Chamise Chaparral (37210) | 25.20 | 11.57 | 13.63 | 46.0% |
| Non-native Grassland (42200) | 50.22 | 27.61 (26.85 without wastewater treatment option 2) | 22.60 (23.37 without wastewater treatment option 2) | 55.0% |
| Eucalyptus Woodland (11100) | 2.50 | 0.14 | 2.36 | 5.0 % |
| Developed (12000) | 18.50 | 13.19 (12.58 without wastewater treatment option 2) | 5.31 (5.92 without wastewater treatment option 2) | 71.0% |
| Mitigated Impacted Area (no code) | 246.92 | 150.63 127.30 without wastewater treatment option 2) | 96.29 (119.62 without wastewater treatment option 2) | 61.0% |
| TOTAL | 935.20 | 397.04 | 538.16 | 42.0 % |

The grading limits for Montecito Way, Ash Street, Montecito Road widening, offsite water Tank and Water boost pump station were used to determine direct offsite impacts.

5.1.1 Significance of Onsite Resource Direct Impacts

5.1.1.1 Habitats

Southern Coast Live Oak Riparian Forest (Habitat Code 61310)

Implementation of the project would not result in direct impacts to southern coast live oak riparian forest. Southern coast live oak riparian forest is considered a rare habitat by the CDFG. It is also regulated under Sections 1600-1603 of the CDFG Code. Guideline No. 1 states that significant impacts would occur if any component of native or naturalized habitat would be removed through grading, clearing, and/or other construction activities. Since no direct impacts would occur to this habitat, impacts are considered not significant.

Engelmann Oak Woodland (Habitat Code Open 71181 and Dense, 71182)

Implementation of the project would result in direct impacts to approximately 0.28 acres of open Engelmann oak and 0.79 acres of dense Engelmann oak woodland. In addition, where the direct loss of this habitat would occur, there is considered an additional 50 feet of direct impact associated with a fifty foot oak root zone buffer typically associated with oak woodlands. This occurs in the two areas of the direct loss of habitat as well as a small sliver of dense Engelmann oak woodland on the east side of the large drainage in the middle of the site. An additional 0.11 acres of open Engelmann oak woodland and 0.14 acre of dense Engelmann oak woodland are considered significantly impacted due to buffer encroachment. Total direct impacts for open Engelmann oak woodland is 0.39 acres and for dense Engelmann oak is 0.93 acres. Therefore in accordance with the Guideline No. 1, this impact is considered significant.

Southern Riparian Scrub (Habitat Code 63300)

Implementation of the project would not result in direct impacts to southern riparian scrub habitat. Guideline No. 2 states that significant impacts would occur if county defined wetlands were impacted due to removal of vegetation, grading, obstruction or diversion of water flow, change in velocity or siltation rate, placement of fill, placement of structures, construction of a road crossing, placement of culverts or other underground piping, any disturbance of the substratum, and/or any activity that may cause change in species composition, diversity, or abundance. Therefore, no significant direct impacts to this habitat are expected to occur onsite in accordance with Guideline No. 2.

Disturbed Wetlands (Agricultural Ponds) (Habitat Code 11200)

Implementation of the Montecito Ranch project would not impact disturbed wetlands and proposes to preserve all agriculture ponds in open space. Guideline No. 2 states that significant impacts would occur if county defined

wetlands were impacted due to removal of vegetation, grading, obstruction or diversion of water flow, change in velocity or siltation rate, placement of fill, placement of structures, construction of a road crossing, placement of culverts or other underground piping, any disturbance of the substratum, and/or any activity that may cause change in species composition, diversity, or abundance. Therefore no significant direct impacts to this habitat will occur in accordance with Guideline No. 2.

Diegan Coastal Sage Scrub (Habitat Code 32520)

Implementation of the project would result in direct impacts to approximately 69.31 acres of the 318.93 total acres of Diegan coastal sage scrub onsite. Diegan coastal sage scrub occupies about 8-10 percent of San Diego County's total area. Hix (1990) indicates that this plant community has been reduced by greater than 70 percent of its original coverage, primarily as a consequence of housing and other urban developments. Because Diegan coastal sage scrub is known to support a variety of sensitive species regionally and because it has been reduced in acreage throughout San Diego County, it is considered a sensitive habitat by local, state, and federal agencies. It is regulated by the NCCP 4(d) guidelines. Following the NCCP Evaluation Logic Flow Chart (Appendix I), the project site is within an area ranked as having high potential for long-term conservation. Guideline No. 1 states that significant impacts would occur if any component of native or naturalized habitat would be removed through grading, clearing, and/or other construction activities. The proposed project would impact 69.31 acres of this habitat and, therefore, is regarded as a significant impact and would require mitigation. In addition, the project will be required to obtain a Habitat Loss Permit in accordance with Guideline No. 12.

Southern Mixed Chaparral (Habitat Code 37120)

Implementation of the project would result in direct impacts to approximately 123.27 acres of the 229.10 total acres of southern mixed chaparral. This represents an incremental reduction of a relatively widespread habitat in the region. Guideline No. 1 states that significant impacts would occur if any component of native or naturalized habitat would be removed through grading, clearing, and/or other construction activities. Although, southern mixed chaparral is a widespread and common community type in San Diego County, this impact would still be regarded as significant and would require mitigation.

Chamise Chaparral (Habitat Code 37210)

Implementation of the project would result in direct impacts to approximately 11.57 acres of the 25.20 total acres of chamise chaparral. Guideline No. 1 states that significant impacts would occur if any component of native or naturalized habitat would be removed through grading, clearing, and/or other construction activities. Although chamise chaparral is a widespread and common community

type in San Diego County, this impact would still be regarded as significant and would require mitigation.

Non-Native Grassland (Habitat Code 42200)

Implementation of the project would result in direct impacts to approximately 27.61 acres of 50.22 total acres of non-native grassland. Non-native grassland onsite provides foraging habitat for raptors and breeding and/or foraging habitat for several other sensitive species known from the site, including California horned lark, loggerhead shrike, San Diego horned lizard, and the red-diamond rattlesnake. Guideline for significance No. 1 states that significant impacts would occur if any component of native or naturalized habitat would be removed through grading, clearing, and/or other construction activities. Loss of approximately 27.61 acres of non-native grassland habitat, therefore, is regarded as a significant impact and would require mitigation. If Wastewater Treatment Option 2 is not approved (i.e. there is no wastewater facility onsite) then impacts to this habitat type will be reduced to 26.85 acres. In addition, there is the potential for additional direct losses to this habitat through implementation of the mitigation for offsite wetland impacts. If habitat conversion is approved for the offsite wetland impacts, impacts to non-native grasslands as part of the mitigation would be considered significant.

Eucalyptus Woodland (Habitat Code 11100)

Implementation of the project would directly impact approximately 0.14 acres of the 2.50 total acres of eucalyptus woodland. These sites primarily support non-native eucalyptus or mission olive. Although eucalyptus trees may be used for nesting and roosting by raptor species, they are abundant in San Diego County and throughout California. Impacts to eucalyptus woodland where it supports active raptor nesting areas would be considered significant. Guideline No. 1 states that significant impacts would occur if any component of native or naturalized habitat would be removed through grading, clearing, and/or other construction activities. Since the eucalyptus trees onsite are a non-native invasive species the loss of 0.14 acres would not be considered significant under Guideline No. 1.

Developed (Habitat Code 12000)

Implementation of the project would result in direct impacts to approximately 13.19 acres of the 18.50 total acres of developed land onsite. Guideline No. 1 states that significant impacts would occur if any component of native or naturalized habitat would be removed through grading, clearing, and/or other construction activities. Because developed land lacks vegetation and habitat value, impacts to this land cover would not be regarded as a significant impact. If Wastewater Treatment Option 2 is not approved (i.e. there is no wastewater facility onsite) then impacts to this habitat type will be reduced to 12.58 acres.

Mitigated, Impacted Area (no habitat code)

Approximately 246.92 acres of land on Montecito Ranch underwent agricultural activities. This land has already been considered impacted and has conducted mitigation in association with that impact. Therefore, impacts to 150.63 acres of this habitat are not considered significant because it has already been mitigated for. If Wastewater Treatment Option 2 is not approved (i.e. there is no wastewater facility onsite) then impacts to this habitat type will be reduced to 127.30.

5.1.1.2 Sensitive Plant Species Onsite

Five plant species present on the Montecito Ranch project site are recognized as sensitive by the resource agencies and/or conservation organizations: Engelmann oak, delicate Clarkia, peninsular spineflower, rush-like bristleweed, and southern tarplant. All of these plant populations, except for Engelmann oak and southern tarplant, onsite have been avoided from direct grading loss.

Impacts to individual Engelmann oak trees however have been accounted for in the overall acreage of impacts to open and dense oak woodland above. The loss of this county Group D species would not be individually significant because Guideline of significance 6a – 6c states:

6a. Impacts would occur to a local population that is regionally significant. Engelmann oaks are still relatively abundant in their range and the majority of the population that occurs onsite is preserved.

6b. The site supports a core block of habitat or linkage that is critical to the species survival:

The site does not support a core of this species population that is critical to the species survival. The majority of oaks onsite will be preserved in open space as part of the overall design.

6c. Impacts to individuals on the site would interfere with regional conservation efforts or goals for the species.

The majority of the individuals in this population is preserved onsite therefore, will not interfere with the regional conservation efforts for this species.

Development immediately adjacent to Engelmann oak woodlands may adversely affect those trees whose canopies occur within 50 feet of proposed grading. These impacts would be considered significant, however, these impacts also have been accounted for above in impacts to open and dense Engelmann oak woodlands.

Two small populations of southern tarplant (accounting for less than 10 plants) will be impacted as part of the proposed spray fields for the Sewage Reclamation

Facility. This impact is not considered significant because this population occurs in the area previously impacted and mitigated. This population has already been mitigated for under a separate action. Therefore impacts and mitigation for this population have already been assessed, thus making this population impact neutral

5.1.1.3 Sensitive Wildlife Species Onsite

California Gnatcatcher

Implementation of the project would result in the direct impact of 69.31 acres of Diegan coastal sage scrub habitat onsite. The project has been designed to avoid to the maximum extent feasible the locations of the California gnatcatchers observed onsite. This includes focusing development to the east end of the site and eliminating the extension of Montecito Road to the west. The project will impact portions of occupied Diegan coastal sage scrub supporting two California Gnatcatcher pairs. Therefore, this impacts would be considered significant and require mitigation. The project will be required to obtain a Habitat Loss Permit or a USFWS 10A permit for this impact in accordance with Guideline No. 12. The North County MSCP Sub-Area Plan was also used as a reference for determining significance of gnatcatcher habitat (Figure 9).

Impacts to California gnatcatcher are considered significant under Guideline No. 5 and Guideline No. 7. Guideline No. 5 determines significant impacts to animal species listed as federal or state, endangered or threatened or Species of Special Concern. The project proposes to impact 21 % occupied California gnatcatcher habitat and to preserve 79 % onsite. Therefore this impact is considered significant under Guideline No. 5.

California Rufous Crowned Sparrow

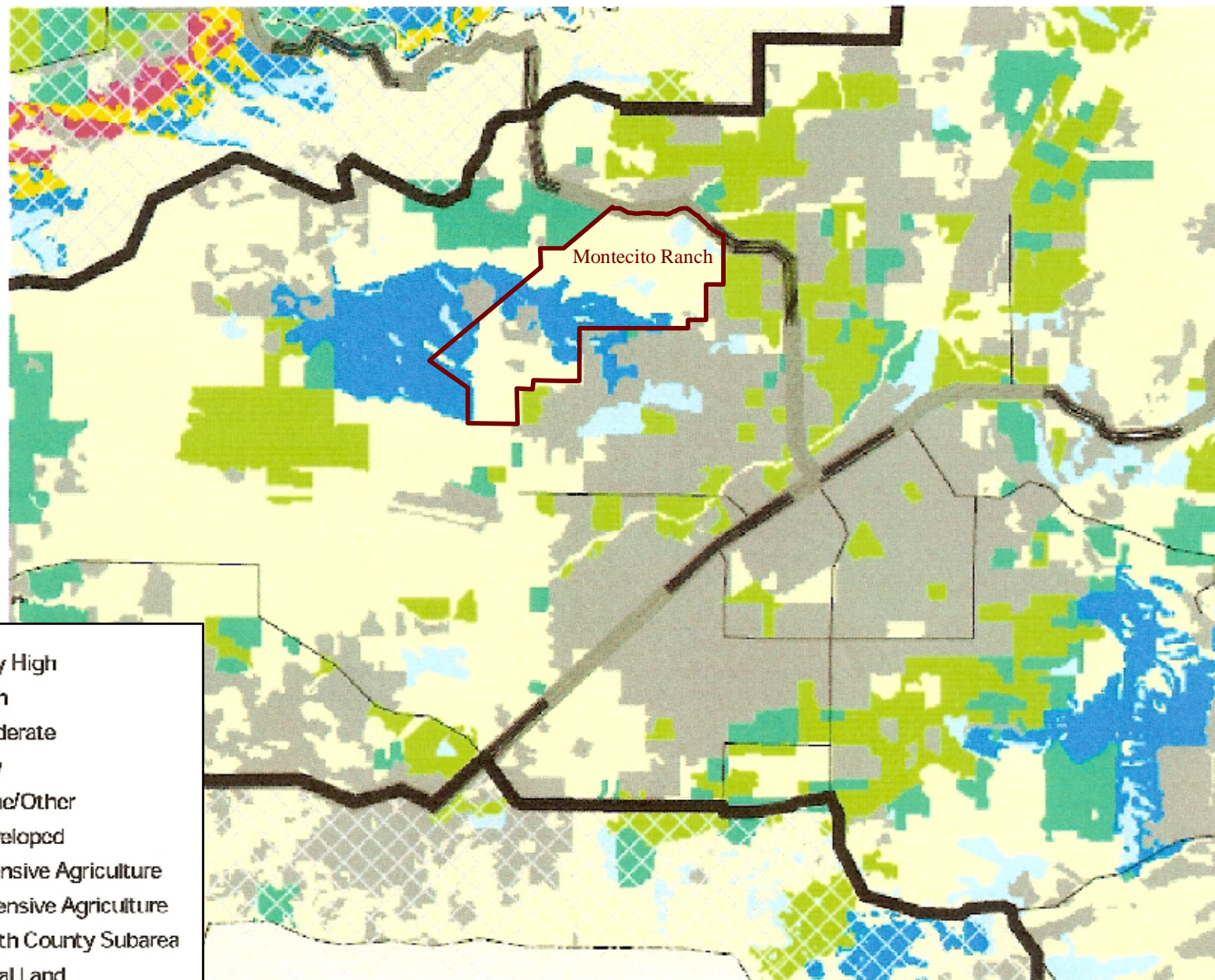
An individual Rufous Crowned Sparrow was observed onsite. No direct impacts to this species are expected to occur.

Reptile Species

Three sensitive reptile species were observed onsite including: two striped garter snake, San Diego horned lizard and coastal whiptail. Each of these species was observed in the Diegan coastal sage scrub habitat north of the large eucalyptus grove. No significant direct impacts to these species are expected to occur in accordance with Guideline No. 5.

Raptor Species

The site contains foraging habitat for a variety of raptor species. Although raptors are opportunistic in their foraging strategies and will use almost any open



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habitat where rodents, birds, and reptiles are present, they typically prefer open shrublands, grassland, and pastureland because prey is more conspicuous and accessible in these areas. The non-native grassland onsite is used for foraging habitat for a variety of raptors. The eucalyptus trees onsite provide roosting and potential nesting habitat for relatively common raptors such as the red-tailed hawk. While the loss of non-native grassland habitat would result in diminished carrying capacity for raptors on the site and in the immediate project vicinity, raptor foraging habitat within San Diego County and the Ramona area is still relatively abundant. In addition, the project has been designed to avoid the largest contiguous block of grassland habitat onsite. In addition, this proposed open space connects to other foraging habitat to the north, west and south. Hence, this reduction in foraging habitat would not be considered significant as defined under Guideline No. 8 which states that a significant impact would occur if substantial raptor foraging habitat is removed.

Mammals

San Diego black-tailed jackrabbit

The loss of the observed locations of five black-tailed jackrabbits, a Species of Special Concern is not considered significant under Guideline No. 6 because this population is not regionally significant (this species is still relatively abundant in the region), the site does not support habitat critical to the survival of the species (habitat for this species is abundant in the area), and impacts to this species will not interfere with the regional conservation efforts for this species.

Desert Woodrat

Although the desert woodrat is listed as a Species of Special Concern, the loss of habitat would not be considered significant and would not require mitigation. The Desert Woodrat is not considered significant under Guideline No. 6 because this population is not regionally significant (this species is still relatively abundant in the region), the site does not support habitat critical to the survival of the species (habitat for this species is abundant in the area), and impacts to this species will not interfere with the regional conservation efforts for this species.

California Thrasher

Impacts to the California Thrasher, a Species of Special Concern, is not considered significant under Guideline No. 6 because this population is not regionally significant (this species is still relatively abundant in the region), the site does not support habitat critical to the survival of the species (habitat for this species is abundant in the area), and impacts to this species will not interfere with the regional conservation efforts for this species.

Loggerhead Shrike

Impact to the Loggerhead Shrike, a Species of Special Concern, is not considered significant under Guideline No. 6 because this population is not regionally significant (this species is still relatively abundant in the region), the site does not support habitat critical to the survival of the species (habitat for this species is abundant in the area), and impacts to this species will not interfere with the regional conservation efforts for this species.

Previously documented species

All previously documented populations of Harbison dun skipper and western spadefoot toad onsite are conserved within open space. Hence, there would be no direct impacts to these species should they re-occur onsite in the future.

5.1.2 Significance of Direct Impacts to Resources Offsite

5.1.2.1 Direct Impacts to Habitats Offsite

Offsite Roadway Improvements

| TABLE 7 HABITAT ACREAGE AND ANTICIPATED IMPACTS FOR OFFSITE* ROADWAY AND UTILITY IMPROVEMENTS | |
|--|------------------------|
| Habitat Type | Direct Impacts |
| Riparian Woodland | 0.24 |
| Diegan Coastal Sage Scrub | 2.2 acres (water tank) |
| Non-native Grassland | 5.0 |
| Agriculture/Pasture | 2.1 |
| Eucalyptus | 1.64 |
| Disturbed/Developed | 3.89/11.87 |
| TOTAL | 26.94 |

* includes Ash Street and Montecito Way Improvements, widening of existing Montecito Road, Offsite Water Tank, Water booster pump station and sewer extension on Kalbaugh Street.

Riparian Woodland

Widening of Montecito Road would impact approximately 0.24 acres of riparian woodland in Santa Maria Creek. The habitat at this location is degraded due to surrounding development. Regardless the widening of the bridge at this location will cause a significant direct impact in accordance with Guideline No. 2.

Diegan Coastal Sage Scrub

Approximately, 2.2 acres of coastal sage scrub habitat would be directly impacted from the construction of the offsite water tank and access road. Impacts to this habitat would be considered significant in accordance with Guideline No. 1.

Non-native Grassland

Non-native grasslands occur adjacent to the proposed offsite road improvements. The non-native grasslands are primarily on undeveloped lots adjacent to the existing roads. Impacts to 5.0 acres would be considered significant in accordance with Guideline No. 1.

Agriculture / Pasture

At numerous locations adjacent to the proposed road widening for Offsite Roadway Improvements, residences on larger lots support horses and thus the land is designated as pasture. Impacts to 2.1 acres of pasture would not be considered significant in accordance with Guideline No. 1 however, would be considered significant in accordance with Guideline No.8.

Eucalyptus

A planted row of eucalyptus occurs along Montecito Way and Montecito Road. These trees are considered street trees and do not comprise a specific woodland at most locations. Impacts to 1.64 acres of eucalyptus trees would not be considered significant in accordance with Guideline No.1 unless an active raptor nest was observed in the tree.

Disturbed / Developed

The majority of improvements to the offsite roadways will require impacts to already disturbed (3.89 acres) or developed (11.87 acres) lands. Approximately 15.6 acres of already developed land will be impacted for the offsite roadway and sewer improvements and would not be considered significant in accordance with Guideline No. 1.

Offsite Wastewater Treatment Option 1 (offsite pipeline)

If Wastewater Option 2 is not selected the following impacts will occur offsite to install the proposed offsite sewer line to Santa Maria Treatment Plant. The proposed offsite sewer line will be buried in the existing roadway and proposed roadway improvements including Montecito Way, Montecito Road and Kalbaugh Street where it will connect to an existing sewer main on the north side of Santa Maria Creek.

Since all sewer impacts will occur within paved or decomposed granite roads, no significant biological impacts are expected to occur. The improvements will impact 0.7 acres of developed land.

5.1.2.2 Direct Impacts to Sensitive Plant Species Offsite

Offsite Improvements

No sensitive plant species occur within the proposed road widening of and sewer pipeline placement in Ash Street, Montecito Way, Montecito Road or Kalbaugh Street. Therefore no direct impacts to sensitive plants would occur with this option.

5.1.2.3 Direct Impacts to Sensitive Wildlife Species Offsite

Offsite Improvements

No direct impacts to sensitive wildlife species are expected to occur within the offsite road widening alignment or the sewer extension. No state or federally listed species were identified within the offsite roadway footprints.

5.1.3 Direct Impacts to Jurisdictional Wetlands and Waters and other Sensitive Lands

Onsite

Table 8 summarizes impact onsite to ACOE, CDFG and RPO wetlands and waters.

| Table 8 | | | |
|--------------------------------------|---|--|------------|
| Jurisdictional Impacts Onsite | | | |
| | ACOE | CDFG | RPO |
| Wetlands | 0 | 0 | 0 |
| Waters | 300 linear feet or ~0.02 acres of fill | 3500 linear feet of fill and/or brush management | 0 |

The impacts to waters include filling and/or brush management of non-wetland waters. These areas are scoured narrow drainages that meet the definition of “waters” for the ACOE and CDFG but do not support hydrophytic vegetation. Impacts to “Waters” are considered significant in accordance with Guideline No. 14. No impacts to RPO wetlands or wetland buffers are proposed therefore no significant impacts to compliance with the RPO apply in accordance with Guideline No. 3.

Offsite

Table 9 summarizes impact offsite to ACOE, CDFG and RPO wetlands and waters for each of the offsite options.

| Table 9 | | | |
|---------------------------------------|----------------------------|----------------------------|----------------------------|
| Jurisdictional Impacts Offsite | | | |
| | ACOE | CDFG | RPO* |
| Offsite Roadway Improvements | | | |
| Wetlands | 0.24 ac. riparian woodland | 0.24 ac. riparian woodland | 0.24 ac. riparian woodland |
| Waters | 0 | 0 | 0 |

*The offsite roadway improvements for the widening of Montecito Road are an allowed use under Section 86.604 a.5.

Impacts to wetlands and/or waters are considered significant in accordance with Significance Guideline 14.

5.2 Indirect Impacts

Indirect impacts result from changes in land use adjacent to natural habitat and primarily result from adverse “edge effects” either short-term, indirect impacts related to construction or long-term, chronic indirect impacts associated with urban development. During construction of the project, short-term indirect impacts include dust and noise, which could temporarily disrupt habitat and species vitality or construction related soil erosion and run-off. Long-term indirect impacts may include intrusions by humans and domestic pets, noise, lighting, invasion by exotic plant and wildlife species, use of toxic chemicals (fertilizers, pesticides, herbicides, and other hazardous materials), soil erosion, litter, fire, and hydrological changes (e.g., groundwater level and quality). In addition the project will comply with the County Grading Ordinance in accordance with Guideline No. 13, to avoid any other indirect impacts. Other potential indirect impacts are discussed in Significance Guideline No. 11.

Significance Guideline 11 states that significant impacts would occur if:

- a. *Post construction noise levels in excess of 60 dB during daytime hours and 50 dB during nighttime hours within Diegan coastal sage scrub occupied by coastal California gnatcatchers;*

There is the potential for noise levels in excess of 60dB within 100 feet from the centerline of the proposed Montecito Ranch Road. That does not take into account topography or future mature landscaping. Much of that area will be within the right of way of the road and or hindered by topographic relief and landscaping. It is anticipated that this impact would not be significant since it is only for a portion of the road that connects the housing development to the park site

to the west. This area is already encumbered by housing development to the south.

- b. *Artificial light adjacent to open space must be in conformance with the County of San Diego Light Pollution Code;*

The project will conform to the County Light Pollution code; a lighting plan is included in Section III of the Major Use Permit (MUP). Lights will be shielded and be within the parameters allowed within the County code, therefore no significant indirect impacts due to lighting are expected to occur.

- c. *Potential for unauthorized encroachment of any kind, including but not limited to clearing within preserved areas and unauthorized pedestrian, equestrian, or off-road vehicle traffic;*

The project open space will be adequately signed per the signage plan, and managed in accordance with the Resource Management Plan; therefore, no significant indirect impacts associated with encroachment into the open space are expected to occur.

- d. *Degradation of the habitat through unrestrained domestic pets or invasive plants; or*

The proposed open space will be protected from unrestrained domestic pets and invasive plants through the management and maintenance tasks outlined in the Resource Management Plan for this project. Therefore, no significant indirect impacts from invasive plants or domestic pets are expected to occur.

- e. *Water runoff causing a change in natural moisture levels and/or increasing the spread of pollution and pesticides.*

The proposed project incorporates desiltation basins, stormwater runoff control and is in compliance with current Regional Water Quality Control Board regulations. Therefore no significant indirect impacts from runoff are expected to occur.

5.2.1 Indirect Impacts Associated with Onsite Resources

5.2.1.1 Indirect impacts to Habitats Onsite

Upland Habitats

Indirect impacts from the proposed development on uplands would include diminished habitat quality along the edge of development areas, primarily because of exotic plants, domestic animals, and increased human encroachment. These impacts along the edge of development would be most severe within the first 50 feet. The project has been designed to reduce the

linear feet of edge effect, remove “islands” of open space that would have diminished carrying capacity and to avoid the more sensitive drainages onsite. However, indirect impacts to wildlife resources within upland habitats would be regarded as potentially significant. A long term Resource Management plan will be provided to reduce this potentially significant impact.

Riparian and Woodland Habitats

Indirect impacts from the proposed development on riparian and woodland habitat (open and dense Engelmann oak woodland, southern coast live oak riparian forest, and southern riparian scrub) would include diminished habitat quality along the edge of development areas, primarily because of exotic plant and animals, and increased chance of human encroachment. The greatest chance of indirect impacts would be where residential lots abut oak riparian forest in the northern portion of the project site. With the inclusion of a sufficient buffer between development and the woodlands, indirect impacts are minimized however, these indirect impacts are considered potentially significant. Where the proposed trail system crosses oak riparian forest and oak woodlands within the project site, potential significant indirect impacts may occur due to use at these areas of the trail by hikers and equestrian users. The implementation of a long term resource management plan will reduce this potential impact.

5.2.1.2 Indirect Impacts to Sensitive Plant Species Onsite

There is the potential for significant indirect impacts to sensitive plant species preserved within the open space in accordance with Guideline No. 4 and 6. This may include trampling, impacts due to illegal off-road vehicle use, erosion due to excessive stormwater runoff or plant collection. The implementation of the Resource Management Plan will ensure that these indirect impacts are not significant.

Irrigation runoff from the proposed housing may negatively affect adjacent oak trees as well as promote growth of opportunistic exotic weed species. Implementation of current water quality guidelines should avoid any significant impacts associated with run-off.

5.2.1.3 Indirect Impacts to Sensitive Wildlife Species Onsite

The proposed project may indirectly impact sensitive wildlife onsite in accordance with Guideline No. 5 and 6. However, the project has been designed to allow for a large contiguous block of habitat, wildlife corridors, and reduce habitat fragmentation in accordance with Guideline No. 9. Implementation of the Habitat Management Plan for the open space onsite will ensure that these potential indirect impacts are not significant.

Significant impacts may occur to California gnatcatcher as specified under Guideline No. 7. Guideline No. 7 states that significant impacts would occur if grading, clearing, or construction occurs within 300 feet of California gnatcatcher occupied habitat between February 15 and August 30. The majority of California gnatcatchers are more than 300 feet away from the proposed grading limit. However one pair was observed near the proposed Montecito Ranch Road. In addition if it is presumed that all of the coastal sage scrub onsite has the potential to support California gnatcatcher then grading, clearing or construction between February 15 and August 30 within 300 feet of coastal sage scrub habitat would be considered significant.

In addition, no construction is expected to occur within 300 feet of the observed location of the California rufous crowned sparrow, therefore no significant impacts in accordance with Guideline No. 5 would occur to this species.

However, any grading, clearing or construction within 300 feet of an active raptor nest between February 15 and July 15 in accordance with Guideline No. 7 would be significant.

5.2.2 Significance of Indirect Impact to Offsite Resources

5.2.2.1 Indirect Impacts to Habitats Offsite

Offsite Improvements

Indirect biological impacts associated with the widening of Ash Street, Montecito Way and Montecito Road and the placement of a sewer line within Kalbaugh Street would be considered less than significant. The majority of the roadway is developed with rural residential, horse facilities or commercial development. In addition the proposed widening is minimal (less than 20 feet) thereby not creating any additional new indirect impacts.

5.2.2.2 Indirect Impacts to Sensitive Plant Species Offsite

Offsite Improvements

No sensitive plant species were observed or are expected to occur adjacent to Ash Street, Montecito Way, Montecito Road and Kalbaugh Street (sewer). Therefore no significant indirect impacts to sensitive plant species is expect to occur in accordance with Guideline No. 5.

5.2.2.3 Indirect Impacts to Sensitive Wildlife Species Offsite

Offsite Improvements

No sensitive wildlife species were observed or are expected to occur adjacent to the proposed offsite roadway and sewer improvements. Therefore no significant indirect impacts to sensitive wildlife species are expected to occur in accordance with Guideline No. 5. Project construction will avoid the bird breeding season to avoid impacts in accordance with Guideline No. 7 and 14.

5.3 Significance of Cumulative Impacts

According to Appendix G of the State CEQA guidelines, implementation of foreseeable projects will normally have a significant cumulative effect on biological resources if they will:

- Have a substantial cumulative adverse effect on a species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the CDFG or USFWS.
- Have a substantial cumulative adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS.
- Have a substantial cumulative effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, riparian scrub, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially and cumulatively with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Cumulatively conflict with any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance; or
- Cumulatively conflict with the provision of an adopted Habitat Conservation Plan, Natural Community conservation Plan or other approved local, regional, or state habitat conservation plan.

Impacts that may not be considered significant on the project specific level can become significant when viewed in the context of other losses in the vicinity of the project site. When evaluating cumulative impacts, CEQA states that: "lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used" (sec. 15130(b) (3). When assessing cumulative impacts to biological

resources the geographic area included in the cumulative analysis should reflect meaningful biological parameters such as:

- Watershed area (for wetlands, waters and aquatic species)
- Distribution of sensitive species populations and home ranges, and
- Habitat use patterns of common wildlife.

Table 10 summarizes the resources studied for the cumulative analysis and the ecological area utilized for the assessment.

Regional Ecosystems

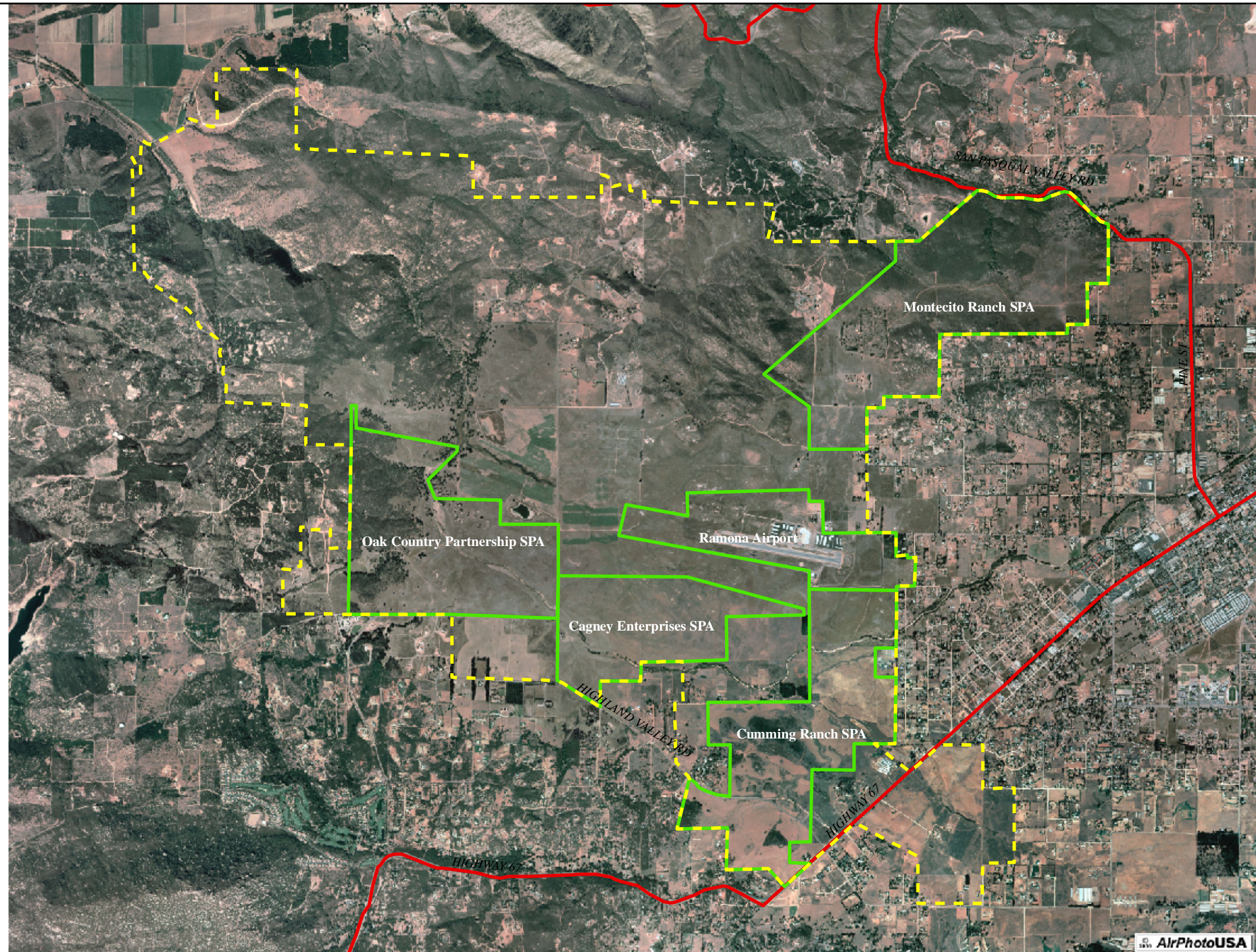
The proposed Montecito Ranch project site is located at the western edge of the community of Ramona with sparsely developed lands to the west (Figure 10). These sparsely developed lands consist of grasslands, oak woodland, and chaparral and coastal sage scrub covered hillsides. The grasslands in the Ramona area have been maintained by grazing and represent a unique biological resource in the region. These grasslands cover the western portion of the project site and form a contiguous habitat throughout the Santa Mara Valley and extend west and south beyond the Ramona Airport. The grassland provide foraging habitat for many species of raptors and support State and Federal listed species. The area is also characterized by clay soils that sustain vernal pools and their inhabitants and also support important populations of sensitive plant species. The Ramona area has been identified as one of the most important areas in the region for vernal pool conservation and large portions of the area have been designated as critical habitat for the San Diego fairy shrimp.

Another important biological resource in the Ramona area is Santa Maria Creek. This intermittent creek flows approximately east to northwest through the developed and undeveloped areas of the Ramona community. Although few sections of this creek support well developed riparian habitat, this feature provides an important regional corridor for wildlife movement. Segments of the creek are also known to support populations of listed species such as the southwestern arroyo toad. Santa Maria Creek traverses the proposed Offsite roadway improvements (Montecito Road widening).

Legend

- Main Roads
- - - Ramona Grasslands Boundary
- Project Boundaries

0 3,500 7,000 Feet
1 inch equals 3,500 feet



| TABLE 10 CUMULATIVE IMPACT RESOURCE STUDY AREA | | |
|---|--|--|
| Biological Resource | Cumulative Assessment Area | Justification |
| Wetland/riparian/oak | Ramona Hydrologic Subarea as defined by RWQCB Basin Plan | encompasses major and minor watersheds of the Ramona Area |
| Grasslands | Ramona Grasslands (Figure 10) | Justifiable since Ramona grasslands area a contiguous and localized resource. |
| Vernal pools | Ramona Vernal Pool Complex (including downtown | The Ramona vernal pools are a distinct separate complex from Otay Mesa and Miramar pools |
| Coastal sage scrub/chaparral | Central Foothills Humid Temperate Ecological Region (as defined by County), except stopping at San Diego River to the south and San Dieguito River to the north. | Justified through elevation to the east and development to the south, west and north |
| California gnatcatcher | Central Foothills Humid Temperate Ecological Region (as defined by County) except stopping at San Diego River to the south and San Dieguito River to the north. | Justified through elevation to the east and development to the south, west and north |
| Raptors | Ramona Grasslands (Figure 10) | In Ramona, raptors are associated with the contiguous Ramona Grasslands |
| Southern Tarplant | Ramona Grasslands (Figure 10) | In Ramona, southern tarplant occurs throughout the Ramona Grasslands. |

The shrub lands (such as coastal sage scrub and chaparral) and oak woodland habitats also provide important habitat in the Ramona region. These habitats provide cover, foraging, and nesting habitat for a wide range of wildlife and contribute to the floral diversity of the region. Chaparral and coastal sage scrub are dominant on the slopes and hillsides in the project area, while open and

dense oak woodlands occupy the shadier portions of the valleys. Although the shrub lands and woodlands are important biological components of Ramona, the grasslands, vernal pools and the Santa Maria Creek corridor are unique to the region and would be considered more important critical priorities for long term conservation in the project vicinity.

The proposed project is located outside of the County's MSCP Subarea Plan, but is located within the Draft North County Subarea Plan (NCSAP), which has not yet been adopted. The county is in the process of preparing the Draft NCSAP; however, this document is not yet available for review. The project site has been mapped on the North County Subarea Plan Habitat Evaluation Map as having high and very high value for habitat preservation.

Cumulative Impact Area for Wetlands, Riparian, Waters, Aquatic Species and Oak Woodland

When analyzing cumulative impacts to wetlands, waters and aquatic species it is important to consider impacts within the watershed in which the project is located, as impacts outside of the watershed will be much less relevant. The Ramona regional area analyzed for cumulative impacts associated with the Montecito Ranch project included the entire Ramona Hydrologic Subarea as defined by the Regional Water Quality Control Board's Basin Plan. This results in a comprehensive evaluation of cumulative impacts to the watershed in which the project list was generated. Oak woodlands are included within this cumulative impact assessment because the oak woodlands onsite are associated with minor watersheds within this hydrological subarea.

Cumulative Impact Area for Sensitive Species

The analysis of cumulative impacts on sensitive species should take into account the distribution of these species, the home range of the species and the distribution of the reproducing population. The two primary species analyzed for cumulative impacts include the California gnatcatcher and the southern tarplant. The California gnatcatcher distribution is throughout the coastal region in San Diego County west of the foothills. The Montecito Ranch project site is near the eastern edge of this species distribution. This species is hindered from connectivity to some other larger populations by topographic and urban development. Therefore, for this analysis, California gnatcatchers were assessed utilizing the County of San Diego, Central Foothill Ecoregion. This Ecoregion was included since it comprises similar habitat at similar elevations as Montecito Ranch, connectivity to other populations are blocked by urban development (Poway to the west, Lakeside to the south, and Ramona to the north). East of Ramona was not included in this analysis since the elevations to the east rise above the known elevation use of this species.

The southern tarplant cumulative impact area was determined to be within the Ramona Grasslands. This is appropriate since this plant's range is within these grasslands and comprises similar habitat as Montecito Ranch. Other sensitive species, including raptors, are covered under these two general ecoregions.

Potential development projects in the region of the project site that were reviewed in association with the cumulative impacts analysis include the Ramona Airport Improvement project, the Ramona Unified School District's Boundary Avenue School project and Olive Peirce Middle School and Ramona High School Reconstruction and Expansion project, Leulf Ranch, Stonecrest, Borysecwicz, Salvation Army Divisional Camp, Monte Vista Oaks, Rancho Esquilago, Oak Country Estates, Rancho Canada, A touch from Above, Rancho San Vicente, Black Canyon, MDS Development Corp. DECA, A Natural High Inc., Rainbird Road, Sunset Vista, Elliot TM, Lakeside Ventures TM, Nickel Creek, Fenton Ranch Grading, McCandles TPM, Means TPM, KVAAS TPM, Saffian TPM, Wakeman TPM, Fenton Ranch, Koury TPM, Spitsbergen, McDonald TPM, Herold TPM, Alamo Storage, Ramona Library, Olive Street Storage, Sgobassi, Dahl, and Huber.

Cumulative Impacts for Sensitive Habitats

Permanent impacts to sensitive habitats associated with the proposed project include coastal sage scrub, oak woodland, southern mixed chaparral, non-native grassland, riparian scrub and vernal swale.

Implementation of the recent and foreseeable projects discussed above would result in a permanent loss of approximately 288.31 acres of coastal sage scrub, 37.62 acres of oak woodlands, 786.94 acres of chaparral, 500.21 acres of non-native grassland, 8.24 acres of riparian habitat and 14.1 acres of other wetlands in the Ramona area (Table 11).

TABLE 11
SENSITIVE BIOLOGICAL RESOURCES IMPACTS COMPARISON

| | Coastal Sage scrub | Chaparral* | CSS Chap | Oak Woodland** | Riparian habitats*** | Vernal pools | Other wetland | Non-native grasslands | Ag. | Eucalyptus | Native grassland |
|------------------------------------|--------------------|------------|----------|----------------|----------------------|--------------|---------------|-----------------------|------|------------|------------------|
| Project Name: | | | | | | | | | | | |
| Montecito Ranch (on and offsite) | 71.51 | 134.84 | - | 1.32 | 0.24 | - | 0 | 32.61 | 2.10 | 1.78 | 0 |
| Oak Country Estates | 2.5 | 136.6 | - | 7.1 | 0.60 | - | -- | 80.0 | - | - | - |
| Ramona Airport Improvement Project | 3.7 | - | - | - | - | 0.3 | 1.0 | 194.0 | - | - | - |
| Boundary Avenue School | 0.9 | - | - | - | - | - | - | 21.8 | - | - | - |
| OPMS and RHS | - | - | - | - | 2.3 | 0.3 | - | 26.7 | - | - | - |
| Luelf Ranch | - | - | - | 1.2 | 0.2 | - | 9.2 | - | - | - | - |
| Stonecrest | 2.4 | - | - | - | - | - | - | - | 56.0 | - | - |
| Borysewicz | - | - | - | 0.5 | - | - | 0.1 | - | - | -- | - |
| Salvation Army | 13.1 | 37.4 | 9.3 | 9.3 | - | - | - | 12.3 | - | - | - |
| Monte Vista Oaks | X | X | - | X | - | - | - | - | - | - | - |
| Rancho Canada | - | - | - | 0.4 | - | - | - | - | - | - | - |
| A touch from Above | 0.1 | 10.4 | - | 2.3 | - | - | - | 0.6 | - | - | - |
| Rancho San Vicente | - | - | - | - | - | - | - | - | - | - | - |
| Black Canyon | 14.8 | 28.1 | 8.6 | 0.7 | 0.1 | - | - | 6.2 | - | - | - |
| MDS Dev. Corp. | 3.5 | 2.9 | - | - | 0.1 | - | - | 6.2 | 60.8 | - | - |
| A Natural High Inc. | - | - | - | -- | - | - | - | 40.1 | 90.4 | 3.5 | - |
| Rainbird Rd. | 1.2 | 275.7 | - | - | - | - | - | - | - | - | - |
| Sunset Vista | - | - | - | - | - | - | - | 7.9 | - | - | - |
| Elliot TM | - | - | - | - | 0.2 | - | - | 1.3 | 14.6 | 0.7 | - |
| Lakeside Venture | 4.7 | 29.5 | - | 1.0 | - | - | - | - | - | - | - |

| | Coastal Sage scrub | Chaparral* | CSS Chap | Oak Woodland** | Riparian habitats*** | Vernal pools | Other wetland | Non-native grasslands | Ag. | Eucalyptus | Native grassland |
|----------------------|--------------------|------------|----------|----------------|----------------------|--------------|---------------|-----------------------|-------|------------|------------------|
| Nickel Creek | - | - | - | - | 0.9 | - | 3.8 | 4.7 | - | - | - |
| Fenton Ranch Grading | 150.7 | 29.6 | - | 1.4 | 3.6 | - | - | 16.7 | - | - | - |
| McCandles GPM | - | 3.9 | 11.9 | 4.5 | - | -- | - | - | - | - | - |
| Means TPM | 0.2 | 0.9 | 7.1 | - | - | - | - | 8.7 | 14.7 | - | - |
| KVAAS TPM | - | 22.3 | - | - | - | - | - | - | - | -- | - |
| Saffian TPM | - | 20.4 | - | - | - | - | - | - | - | - | - |
| Wakeman TPM | 1.9 | - | 3.6 | - | - | - | - | 1.5 | 13.8 | - | - |
| Fenton Ranch | 0.9 | - | - | - | - | - | - | - | - | - | - |
| Koury TPM | X | X | - | X | - | - | - | - | - | - | - |
| Spitsbergen | - | 54.4 | 4.4 | 6.3 | - | - | - | - | - | - | - |
| McDonald TPM | - | - | - | - | - | - | - | 7.5 | - | 0.7 | - |
| Herold TPM | - | - | - | - | - | - | - | 2.0 | - | - | - |
| Alamo Storage | - | - | - | - | - | - | - | 4.7 | - | - | - |
| Ramona Library | - | - | - | - | - | 0.1 | - | 0.7 | - | - | - |
| Olive Street Storage | - | - | - | - | - | - | - | X | - | - | - |
| Sgobassi | 16.2 | - | - | 1.6 | - | - | - | - | - | - | - |
| Dahl | - | - | - | - | - | - | - | 11.1 | - | - | - |
| Huber | - | - | - | - | - | - | - | 12.9 | - | - | - |
| TOTALS | 288.31 | 786.94 | 44.9 | 37.62 | 8.24 | 0.7 | 14.1 | 500.21 | 250.3 | 6.68 | 0.39 |

*includes all types of chaparral including chamise chaparral, southern mixed chaparral, scrub oak chaparral and granitic chaparral

** includes live oak woodland, Engelmann oak woodland and Southern coast live oak riparian woodland

*** includes riparian scrub, willow scrub, mulefat scrub and southern willow riparian woodland

The collective loss of small amounts of coastal sage scrub, coast live oak woodland and southern mixed chaparral would not be considered cumulatively substantial and would not be considered significant. The collective loss of 500.21 acres (representing approximately eight percent) of the non-native grassland regionally would not be considered cumulatively substantial, as impacts to this vegetation community in Ramona are primarily occurring within in-fill parcels surrounded by development, such as the Elliot, McDonald, Herold, Sunset Vista, Nickel Creek, A Touch from Above, Olive Peirce Middle School and Ramona High School, Alamo Storage, Ramona Library, Olive Street Storage, and Huber projects; or along the fringes of large contiguous patches of this habitat community, such as the Ramona Airport Improvement Project, Boundary Avenue, Rancho Escquilago, Rancho San Vicente, Black Canyon, MDS Dev. Corp/DECA, Fenton Ranch Grading, Means TPM, Salvation Army Divisional Camp, Wakeman, and Dhal projects. Development of small patches of vegetation along the fringes of these habitat communities results in minimization of edge effects and the preservation of large, contiguous patches of habitat.

Implementation of the proposed project and recent and foreseeable projects in the Ramona area would not result in significant cumulative impacts to southern coast live oak riparian forest, southern riparian scrub, disturbed wetland and riparian woodland. Federal, State, and county policies require that projects have a no net loss of riparian vegetation communities, including southern coast live oak riparian forest, southern riparian scrub, disturbed wetland and riparian woodland. The proposed project would mitigate its impacts to southern coast live oak riparian forest, southern riparian scrub, disturbed wetland and riparian woodland at an acre ratio of 3:1, including a minimum ratio of 1:1 in the form of creation. That means that for every acre of wetland impact, at least one acre of the affected habitat must be created elsewhere and the remaining balance (2:1) must be enhanced at an existing location until a total of a 3:1 mitigation ratio is reached. The other cumulative projects resulting in impacts to southern coast live oak riparian forest, southern riparian scrub, disturbed wetland and riparian woodland would also be required to comply with these policies for wetland creation and mitigation at these acreage ratios. Therefore, there will be no net loss to wetlands and there is no cumulative impact to these habitat types.

Several of the projects considered in this analysis have or will likely impact vernal pools. The Ramona Airport Improvement project and the OPMS and RHS project include plans to implement vernal pool enhancement and management programs to mitigate impacts to vernal pools. Because the countywide rare status of vernal pools and the even more rare status of Ramona vernal pools, any direct impact would be considered significant at the project and at the cumulative level. However, implementation of the proposed project will not have direct or indirect impacts to vernal pool basins and, therefore, the proposed project would not contribute to potentially significant cumulative impacts to vernal pools.

Cumulative Impacts for Sensitive Plants

Southern tarplant is an annual plant that occurs throughout the Ramona Grasslands. These populations expand and contract in size due to weather patterns and/or mechanical soil alteration. In addition, the populations identified throughout the grasslands are continually affected by grazing and spray fields in the area. Known populations occur on projects such as Montecito Ranch, Ramona Airport, Oak Country Estates, and Cumming Ranch. In addition numerous smaller, undeveloped parcels that are not currently processing projects are known to support this species.

Approximately one third (as measured in 1996) of the southern tarplant population on the Ramona Airport would be impacted as part of the Ramona Airport Improvement Project. It is currently unknown when the airport improvements are proposed to occur. The EIR for that project identified mitigations measures for this specific impact that would reduce these impacts to less than significant.

A large population of southern tarplant also occurs on the Oak Country Estates Project. The entirety of this population (~1.6 acres containing ~32,000 individuals) will be avoided and protected in open space as part of that project.

The current development design for Cumming Ranch proposes to impact 3.3 acres of Southern tarplant population. This significant impact is proposed to be mitigated to below a level of significance.

The proposed Montecito Ranch project avoids impacts to this plant population onsite and offsite.

Given that much of the Ramona Grasslands have already been preserved and continue to be a high priority for the County of San Diego to preserve, and that these grasslands support southern tarplant, significant cumulative impacts due to the above projects to this species are not expected to occur. This conclusion is based on the prevalence of this species to regenerate after disturbance, the mitigation required for the above projects and the commitment by the County to protect the Ramona Grasslands as a whole.

Cumulative Impacts for Sensitive Wildlife

The Ramona area supports important populations of sensitive wildlife species including California gnatcatchers and several species of raptors. Each of these species occurs on the project site along with several other sensitive wildlife species. Development of the grasslands in Ramona would likely have significant cumulative impacts to raptors. In addition significant indirect impacts may occur

to sensitive raptor species due to loss of foraging habitat. Impacts to raptor species, including but not limited to golden eagles, burrowing owls, red-tailed hawk, and red-shouldered hawk, have occurred or would occur as a result of the following projects: the Ramona Airport Improvement project, OPMS and RHS Reconstruction and Expansion projects, the Borysewicz project, Salvation Army Divisional Camp, Rancho Esquilago, Cumming Ranch, Montecito Ranch and Oak Country Estates.

Implementation of the recent and foreseeable projects discussed above would result in the permanent loss of eight percent of the potential raptor foraging habitat (non-native grasslands) in the Ramona area. However, this loss is not considered significant as impacts are located primarily along the fringes of large patches of habitat, which allows for avoidance and preservation of large contiguous patches of habitat. Therefore, cumulative impacts to raptors are not considered significant.

Extensive development of shrublands throughout Ramona and the region extending to the north, east, south and west may result in a cumulative impact to California gnatcatcher however not significantly due to the implementation of regional conservation efforts and regulations.

Cumulative Impacts to commonly occurring habitats and species

Potential cumulative impacts to the other detected species and habitats are considered less than significant due to their relative common distribution throughout the chaparral and grassland habitats in the San Diego region, and because impacts to these species are generally mitigated through habitat based mitigation measures.

Conclusion

Development of the proposed project would not contribute to any significant cumulative impacts to biological resources that are anticipated to occur through the implementation of past, present, and foreseeable projects in the Ramona area. Montecito Ranch is consistent with regional conservation planning principles, as it would preserve large contiguous blocks of undisturbed and sensitive habitats and would maintain connectivity with adjacent undeveloped lands.

The County of San Diego, in coordination with the USFWS and the CDFG, are preparing a regional habitat conservation program for sensitive habitats and species. The proposed North County MSCP Subarea Plan will ensure that significant resources will be adequately preserved in permanent open space and that all projects will be in conformance with that plan. An assemblage of corridors, open space linkages and habitat preservation systems will need to be put in place as these projects are reviewed and approved. The Montecito Ranch

project adds to the regional cumulative loss of habitat, but is also designed to fully mitigate Diegan coastal sage scrub impacts by permanently preserving 249.62 (142.2 acres as part of the TM SPA, 106.90 to be dedicated under a separate action and 0.52 acres protected under RPO) acres of Diegan coastal sage scrub onsite. The related projects listed in the appendix would also be required to mitigate for any loss of coastal sage scrub habitat under the NCCP guidelines or the proposed North County MSCP.

The local, state and federal agencies enforce a no-net-loss of wetland policy. This requires the creation of new wetlands for each acre of wetland impacted. Prior to allowing this mitigation, avoidance of wetlands needs to be pursued. Cumulatively the implementation of the no-net-loss policy ensures that there would not allow for a significant cumulative loss of wetlands regionally.

5.4 Wildlife Corridor Analysis

5.4.1 Regional Wildlife Corridors Onsite

The primary regional corridor in the vicinity of the project site is Bandy Canyon, which contains Santa Maria Creek (corridor number 1 as shown on Figure 11). The project site, however, is located approximately 2.5 miles to the east of this primary regional corridor between Ramona and the San Pasqual Valley. Just to the east of the project site, an additional secondary corridor that may be used for wildlife movement is Clevenger Canyon, which also contains an unnamed blue line creek (Corridor 4 as shown on Figure 11). This creek is a tributary to Santa Ysabel Creek; however, Highway 78 traverses much of this canyon, limiting its use as a viable wildlife corridor. This secondary corridor traverses rural residential areas, whereas the primary corridor listed above consists of more pristine habitat. The project is designed to provide the maximum contiguous area of undeveloped land including grasslands, (corridor 3 as shown on Figure 11), shrublands and woodlands to be included within the Ramona Grasslands assemblage.

The proposed project is a design focusing the majority of impacts in the eastern portion of the site abutting existing rural residential development. The project site's ability to serve as a regional corridor in the eastern portion of the site is limited by the amount of development to the north, east and south (Figure 11). Therefore, the habitat linkages to the northwest and west (corridors 1 and 3) may be the most important for the regional movement of wildlife species. This corridor connects to the San Pasqual River Valley, which is known to be a high value wildlife area.

5.4.2 Regional and local Wildlife Corridor Impacts Offsite

Figure 11 shows regional wildlife corridors in the vicinity of Montecito Ranch and Montecito Way. Local corridors for Montecito Road consist of Santa Maria Creek.

East of the Cumming Ranch is a small area of currently open grassland and agricultural lands that extend across SR67. However these lands located east of SR 67 are proposed for eventual residential and school developments. Connection to or from the Cumming Ranch would be via Etcheverry Creek (corridor 2 as shown on Figure 11) and across or under SR67. There is little or no cover or concealment habitat east of SR67, other than the depth of drainages and tall grass or weeds. The nearest shrubland and oak woodland habitats to the Cumming Ranch are approximately 2 to 3 miles to the east. Etcheverry Creek is sparse in the available amount of cover and concealment and currently offers better protection for potential wildlife movements along the creek bottom. No large predator or prey sign was identified along Etcheverry Creek. However, small and medium sized animal movement does occur along Etcheverry Creek as evidenced by direct observations of amphibians, coyotes and gray fox. The potential for any wildlife movement to the east from Santa Maria Creek is very low. This area adjacent to the Cumming Ranch is much more densely developed with rural homes, in which all properties are fenced and any movement along the residential dirt roads or within the Santa Maria Creek drainage would be highly restricted and lead animals into the heart of the town center.

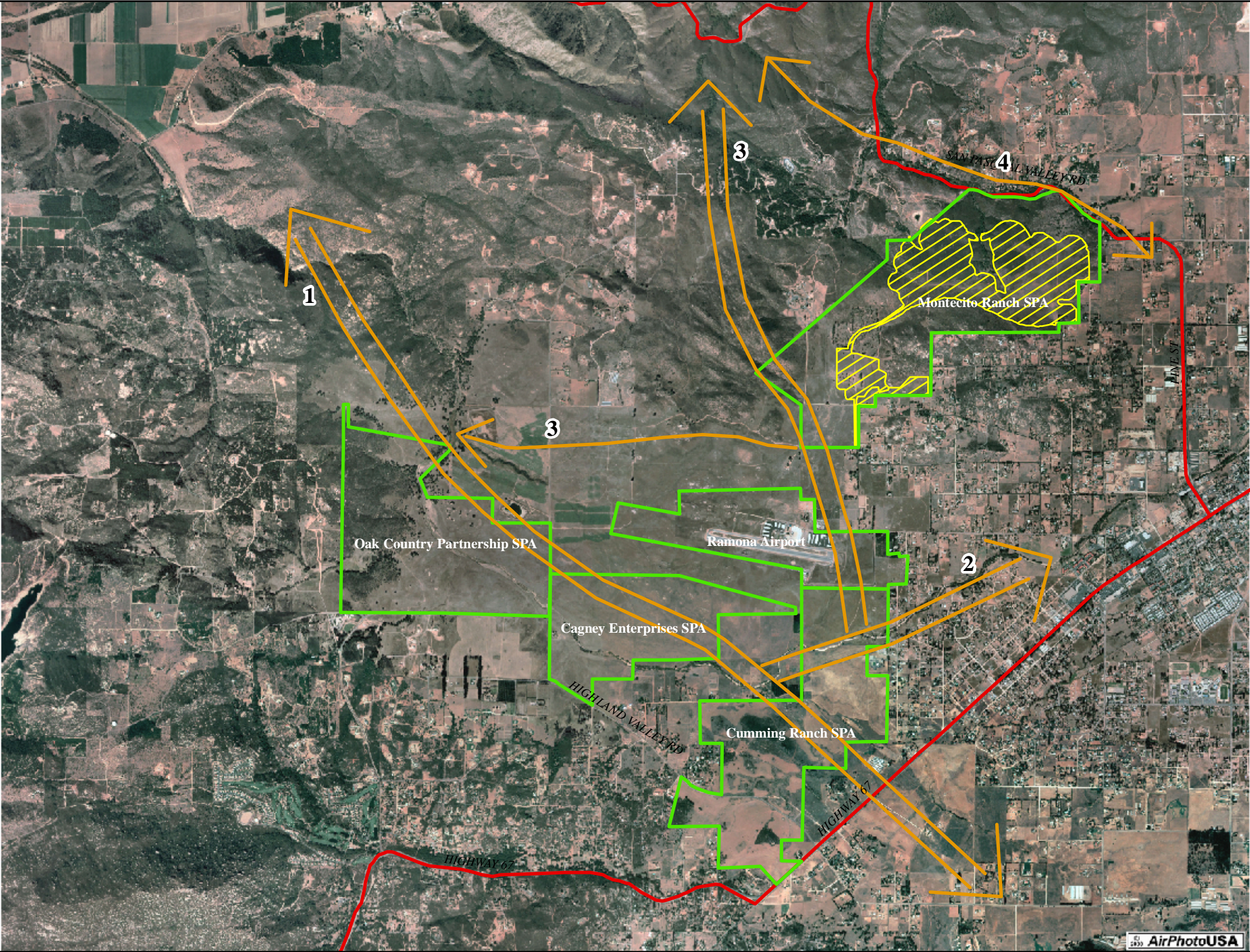
5.4.3 Local Wildlife Corridors

Local movements of animals are also of importance, especially for those species with limited home ranges and/or dispersal capabilities. The proposed project condenses residential development to the eastern portion of the site, preserving the western portion of the site as open space. This open space area on the northern boundary is contiguous with offsite open space and contiguous with a north/south corridor through the oak woodland drainage onsite. The main drainage near the center of the eastern portion of the site is proposed for open space and is designated on Figure 12 as a local wildlife corridor. Although the corridor will be surrounded on two sides by proposed development, the habitat and topography of this canyon will still provide value to localized wildlife use. The corridor in this location varies in width from 300 to 800 feet and connects to the much wider open space to the north. Two HOA lots are proposed for fuel management and therefore will be maintained thinned of vegetation but will remain undeveloped. The slopes of the canyon are relatively steep and the density of the vegetation will allow for substantial wildlife cover. Therefore, although the project will provide some edge effect impacts to this area, this local corridor is still an important part of the overall open space design by providing a connection to the north, and providing valuable cover and nesting opportunities.







Legend

- Main Roads
- Project Boundaries
- Wildlife Corridors
 - 1. Bandy Canyon, Santa Maria Creek
 - 2. Etcheverry Creek
 - 3. Grassland
 - 4. Clevenger Creek
- Proposed Project Area

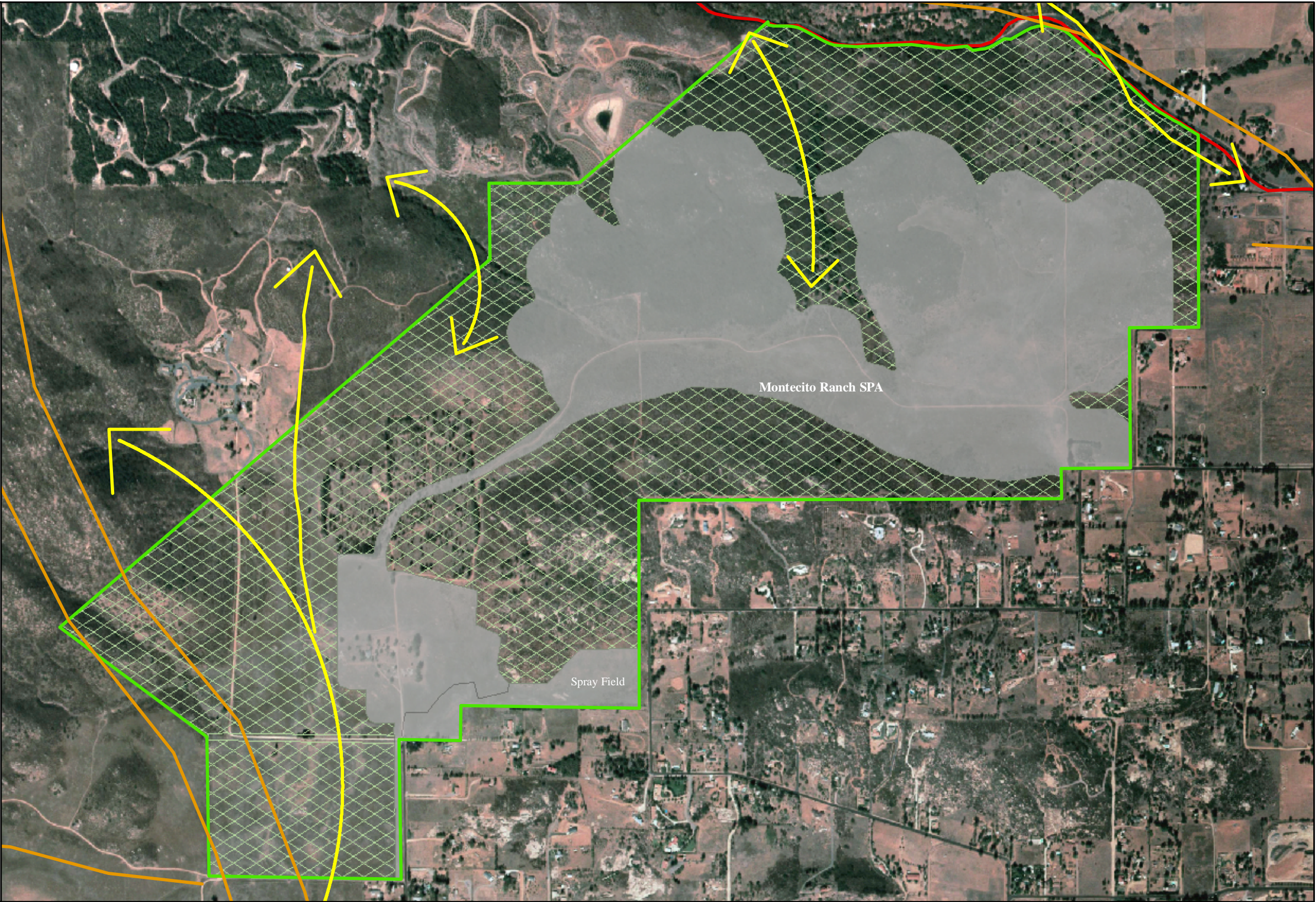
0 3,500 7,000 Feet
1 inch equals 3,500 feet



Legend

-  Project Boundary
-  Main Roads
-  Regional Wildlife Corridor
-  Local Wildlife Corridor
-  Proposed Impacts
-  Proposed Open Space

0 1,000 2,000 Feet
1 inch equals 1,000 feet



Local Wildlife Corridors
Montecito Ranch

Figure
12

In accordance Guideline No. 10 and 11 it is concluded that wildlife movement in the area would not be considered significant. Guideline 10 states that significant impacts would occur if:

- b. the project would prevent wildlife from accessing areas considered necessary to their survival;

The project does not prevent wildlife from accessing areas necessary for their survival. The project preserves the majority of the grassland habitats as well as canyons and woodlands.

- c. the project would restrict wildlife from utilizing their natural movement paths;

Wildlife tends to use closed canopy canyons for movement. The project proposes to preserve the majority of the oak woodlands onsite. In addition, the open grasslands at the west end of the project are important for predators and will be preserved.

- d. the project would further constrain a narrow corridor by reducing width removing available vegetative cover, or creating edge effects, or placing barriers in the movement path; or

The project proposes to concentrate development in the east end, adjacent to existing development, thereby impacting a block of habitat already affected by detrimental edge effect. No barriers are proposed that would limit the movement of wildlife through the area.

- e. the project would create artificial corridors that do not follow natural movement corridors.

The project does not force wildlife into an area they would not already use nor create artificial corridors. The project is designed to maximize the most important biological habitats for wildlife use, concentrating development in those areas already constrained.

Therefore, no significant impacts associated with significance guideline 10 are anticipated to occur.

Local wildlife corridors will not be significantly altered by the proposed project since the majority of the site is contiguous open space (Figure 12) to adjacent undeveloped land. In addition, the proposed road will not significantly affect wildlife movement onsite because the majority of connected connections are through the onsite drainages and larger grassland to the west.

5.5 North County Subarea Plan of the MSCP

The County of San Diego requires that projects that are within the County's Subarea Plan of the Multiple Species Conservation Program (MSCP) conform to the findings set forth in the Biological Mitigation Ordinance. The Montecito Project site is not currently within the County of San Diego's approved south County Subarea Plan. The County is in the process of preparing the North

County Subarea Plan to the MSCP. Montecito Ranch is part of the draft North County Subarea Plan. Since it is likely that the North County Subarea Plan will be approved prior to construction of this project a hard line approval is being sought by the applicant.

The Montecito Ranch project has initiated hard line open space discussion with the County of San Diego as well as the USFWS and the CDFG. The current project design incorporates that hard line open space. The hard line open space allows for take authorization of the impacted area with no further approvals necessary from the resource agencies.

The hard line take for offsite roadway improvements including all grading and fuel modification limits are within the proposed open space as proposed for Montecito Ranch includes all areas outside of the proposed grading and fuel modification limits. The hard line for Montecito Ranch is depicted on Figure 13 and 14. The hardline agreement between the applicant, County of San Diego and resource agencies will incorporate the mitigation and protection measures discussed within this report. Mitigation measures are detailed below. In addition to the mitigation detailed below, the project will also include a Resource Management Plan. That plan outlines the management tasks that will need to be conducted to preserve the proposed open space in perpetuity. This includes maintenance, management and sensitive species surveys.

5.6 Resource Protection Ordinance Compliance

The purpose of the County of San Diego RPO is to protect and preserve features, resources, and habitats unique to San Diego County. These features include steep slopes, sensitive lands, wetlands, wetland buffer areas, floodways, and pre-historic and historic sites. As evidenced by the Resource Protection Study (REC 2008) for Montecito Ranch the proposed project is in conformance with the purpose and guidelines set forth in the RPO for the following resources:

- No impacts to RPO defined sensitive steep slope lands will occur with the development of the Montecito Ranch property
- All potential impacts to sensitive habitat lands on the project site will be adequately mitigated to provide an equal or greater benefit to the affected species.
- No impacts to wetland habitats or wetland buffer areas will occur onsite, and offsite road impacts meet RPO allowed use criteria.
- The Montecito Ranch project is not subject to any RPO defined floodways and therefore, will not impact a floodway.
- Construction of the offsite roadway improvements meets the RPO definition of a permitted use in accordance with Section 86.604 a.5. The offsite roadway improvements meet the findings for a crossing of wetlands

January 2008

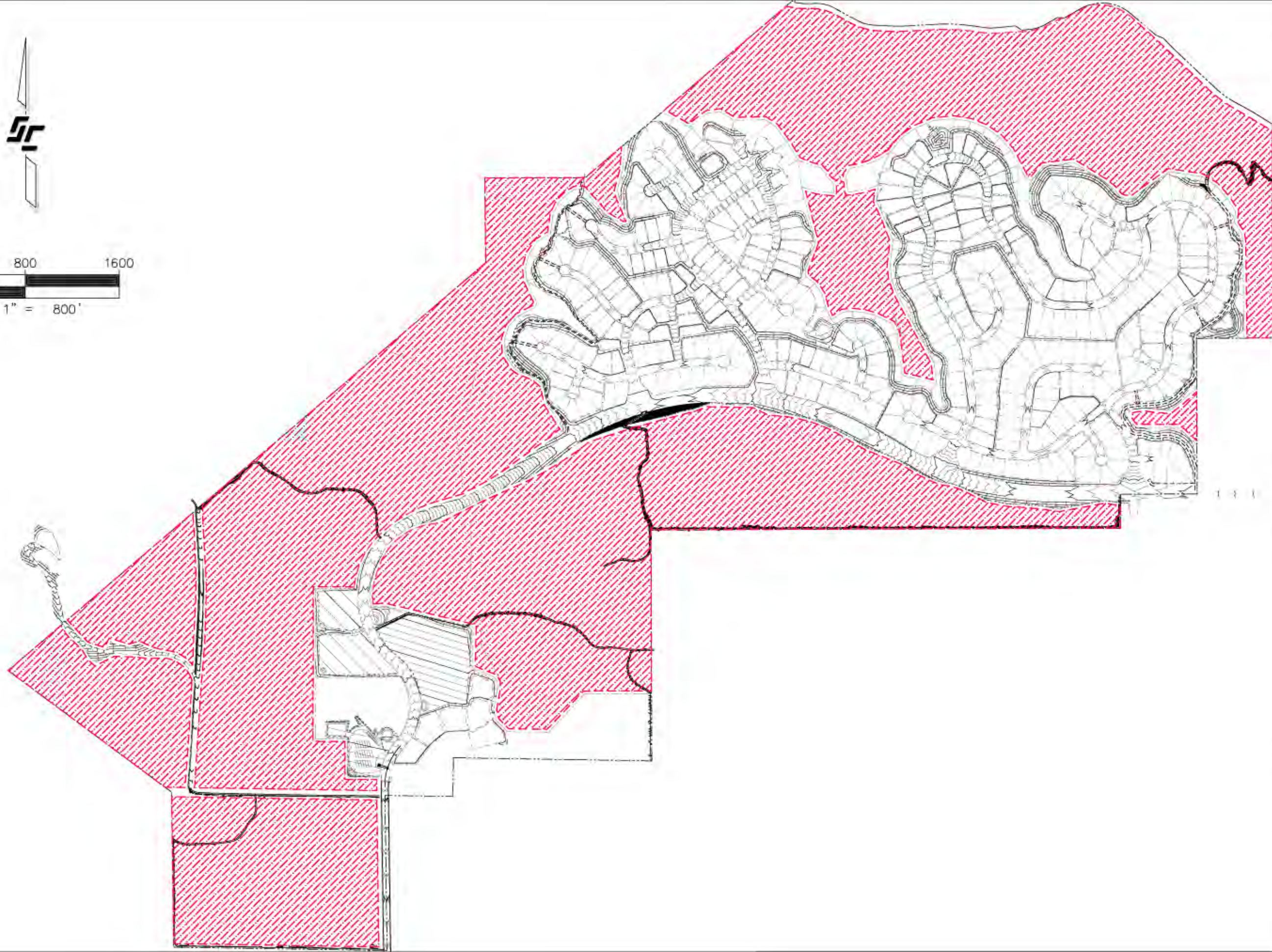
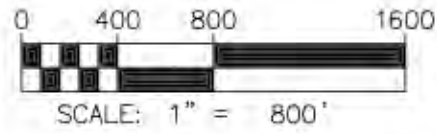


EXHIBIT MSCP

| | |
|------------------|------------|
| DATE: | REVISIONS: |
| DESIGNED BY: | |
| CHECKED BY: | |
| SCE NO. 02012.05 | |

**MSCP EXHIBIT
MONTECITO RANCH
RAMONA, CALIFORNIA**

STEVENS-CRESTO ENGINEERING, INC.
CIVIL ENGINEERS - PLANNERS - LAND SURVEYORS
9845 CALIFORNIA DRIVE
SUITE 200
SAN DIEGO, CA 92121 1852
PHONE: 858.694.5640
FAX: 858.694.5641
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Figure 14

for roads as an allowed use. A detailed Resource Protection Study for this project is provided under separate cover. .

End of Section 5.0

6.0 MITIGATION MEASURES

Under California Environmental Quality Act (CEQA), mitigation is required for all significant biological impacts. The following mitigation measures are required to offset significant biological impacts. Recommendations are also given to offset locally important biological impacts. Although mitigation measures are not often required for locally important impacts, local jurisdictions often implement these measures to minimize cumulative impacts within the region. No mitigation is required for impacts to eucalyptus woodland, extensive agriculture, and disturbed habitat since these habitat impacts were not considered significant.

The USFWS has adopted mitigation guidelines for significant biological impacts. These include in order of preference: 1) avoidance of impacts, 2) minimization of impacts to the maximum extent practicable, and 3) mitigation, only if avoidance is not feasible and the impacts have been minimized. Whenever possible, the significant impact should be avoided using design alternative such as increasing development density in disturbed habitats while reducing or eliminating density in areas that support sensitive biological resources. If it is not feasible to avoid the impact due to either jurisdictional policy or to economic or topographic constraints, then minimizing of impacts should be considered. Impacts on significant resources should be minimized to the greatest extent feasible. Minimizing includes decreasing lot size, narrowing roadways, increasing buffer zones, etc. If unavoidable impacts to significant resources would still occur, a mitigation plan that would meet the requirements of the reviewing or permitting agencies may be required.

Table 12 summarizes the amount of habitat impacted, the required mitigation and habitat preserved onsite. Table 13 summarizes the impacts and mitigation for offsite road improvements. Figure 15 contains a map of the proposed open space areas onsite. Mitigation, per habitat, is discussed below with corresponding level of significance after mitigation.

The onsite open space is proposed as mitigation for project impacts with the exception of the existing open space and the wetlands and wetland buffer areas shown on Figure 8 pursuant to the RPO. Preservation of RPO wetlands and wetland buffers is required by the ordinance and shall not serve as preservation mitigation for impacts. Some areas may be used for enhancement to improve the overall quality of the open space onsite as discussed below.

Table 12
. Montecito Summary of Impacts and Mitigation

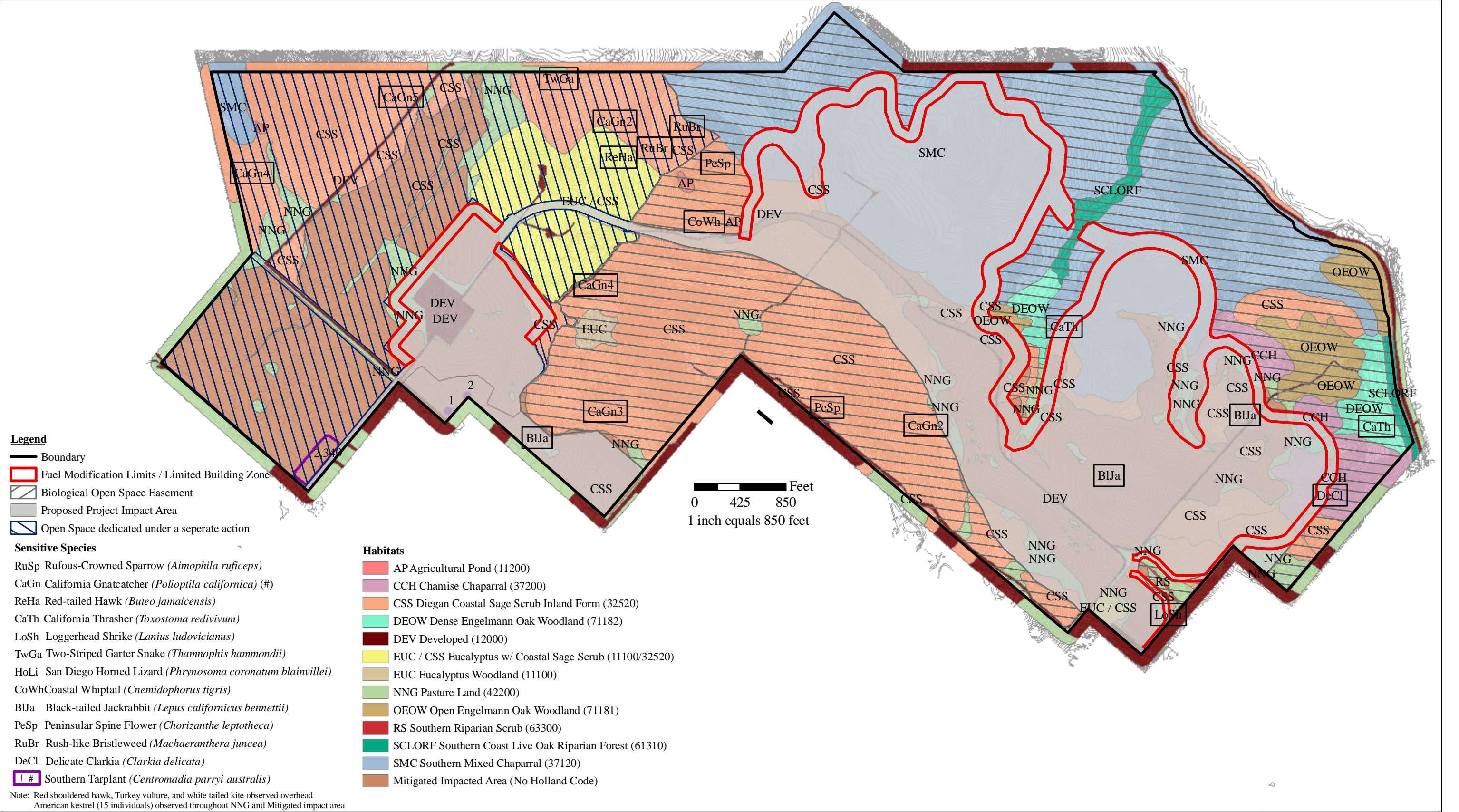
| Habitat Type | Total Acres Onsite | Direct Impacts | Acres Not Impacted | Mitigation Ratio | Mitigation Required | Acres Not Allowed For Mitigation* | Acres Available For Mitigation | Mitigation Achieved Onsite? | Acres Remaining for Possible Mitigation |
|---|---------------------------|-----------------------|---------------------------|-------------------------|----------------------------|--|---------------------------------------|------------------------------------|--|
| Southern Coast Live Oak Riparian Forest | 10.60 | 0 | 10.6 | 3:1 | 0 | 9.42 (RPO) | 1.18 | n/a | 1.18 |
| Open Engelmann Oak Woodland | 18.60 | 0.39 | 18.21 | 3:1 | 1.17 | 4.19 (RPO) | 14.02 | yes | 12.85 |
| Dense Engelmann Oak Woodland | 13.60 | 0.93 | 12.67 | 3:1 | 2.79 | 8.61 (RPO) | 4.06 | yes | 1.27 |
| Southern Riparian Scrub | 0.30 | 0 | 0.30 | 3:1 | 0 | 0.30 (RPO) | 0 | n/a | 0 |
| Disturbed Wetland (Ag ponds) | 0.73 | 0 | 0.73 | 3:1 | 0 | 0 | 0.73 | n/a | 0.73 |
| Diegan Coastal Sage Scrub | 318.93 | 69.31 | 249.62 | 2:1 | 138.62 | 0.52 (RPO) 106.90 (O.S) | 142.20 | yes | 3.58 |
| Southern Mixed Chaparral | 229.10 | 123.27 | 105.83 | 0.5:1 | 61.63 | 1.16 (RPO) 4.00 (O.S.) | 100.67 | yes | 39.04 |
| Chamise Chaparral | 25.20 | 11.57 | 13.63 | 0.5:1 | 5.78 | 0 | 13.63 | yes | 7.85 |
| Non-native Grassland | 50.22 | 27.61 | 22.60 | 1:1** | 27.61 | 1.60 (RPO) 15.08 (O.S) | 5.93 | no*** | -21.68 |
| Eucalyptus Woodland | 2.50 | 0.14 | 2.36 | 0:1 | 0 | 0 | 2.36 | n/a | 2.36 |
| Developed | 18.50 | 13.19 | 5.31 | 0:1 | 0 | 1.25 O.S. | 4.06 | n/a | 4.06 |
| Mitigated, Impacted Area | 246.92 | 150.63 | 96.29 | 0:1 | 0 | 0.27 (RPO) 93.27 (O.S.) | 2.75 | n/a | 2.75 |
| Total | 935.20 | 397.04 | 538.15**** | | 237.60 | 246.57 | 291.59 | | 53.99 |

*This calculation discounts lands already in open space (O.S.) or is within a County RPO or County RPO buffer

** County guidelines require that non-native grasslands in the Ramona Grasslands area be mitigated at 1:1 (0.5:1 for the non-native grassland and 0.5:1 for raptor foraging)

*** Mitigation for this impact cannot be achieved onsite, in kind; therefore the additional mitigation will be required to be purchased offsite at a pre-approved mitigation bank or other land approved by the director of Planning and Land Use.

****This number differs from the open space subtotals depicted in the Specific Plan for this project since the Specific Plan utilizes different criteria for open space.



6.1 Mitigation for Direct Impacts

6.1.1 Mitigation for Onsite Habitats

Mitigation for significant impacts is proposed through onsite preservation of a variety of habitat types. A Resource Management Plan for the open space habitat is attached (Appendix K) and must be approved prior to issuance of a grading permit and prior to recordation of final map or final map units.

Southern Coast Live Oak Riparian Forest (Habitat Code 61310)

No direct impacts to southern coast live oak riparian forest habitat onsite would occur. All 10.60 acres of southern coast live oak riparian forest will be preserved onsite in dedicated open space.

Engelmann Oak Woodland (Habitat Code Open, 71181 and Dense, 71182)

The proposed project will directly impact through grading, fuel modification and encroachment within fifty feet of oak tree dripline, approximately 1.32 acre of both open and dense Engelmann oak habitat onsite. Impacting to this habitat requires mitigation at a 3:1 ratio, or 3.96 acres. The remaining approximately 30.88 acres of Engelmann oak woodland will be preserved onsite in dedicated open space thus reducing impacts to below a level of significance.

Southern Riparian Scrub (Habitat Code 63300)

No significant direct impacts to southern riparian scrub habitat are proposed. Therefore, mitigation is not required for this habitat.

Disturbed Wetlands (Habitat Code 11200)

No impacts to disturbed wetlands are proposed as part of this project therefore, no mitigation is required.

Diegan Coastal Sage Scrub (Habitat Code 32520)

Within the NCCP guidelines, the site is ranked as having a high potential value for long-term conservation. The proposed project avoids the highest quality coastal sage scrub, known areas of California gnatcatcher habitation and will avoid the bird breeding season during brushing and clearing. This coupled with a mitigation ratio for impacts to Diegan coastal sage scrub of 2:1 mitigates for this impact. Therefore, the loss of 69.31 acres of Diegan coastal sage scrub onsite would require 138.62 acres for mitigation. Onsite preservation of 138.62 acres of the total onsite coastal sage scrub in open space that is available for mitigation meets this mitigation requirement. Preservation of the remaining habitat onsite reduces the impact to coastal sage scrub to below a level of significant.

Preservation will be in the form of a dedicated and managed open space easement.

Southern Mixed Chaparral (Habitat Code 37120)

The loss of 123.27 acres of southern mixed chaparral would need to be mitigated at a ratio of 0.5:1. Onsite preservation of 61.63 acres of the remaining 100.67 acres of southern mixed chaparral available for mitigation in open space mitigates for this impact. This mitigation reduces the level of impact to this habitat to below a level of significance. Preservation will be in the form of a dedicated and managed open space easement.

Chamise Chaparral (Habitat Code 37200)

The loss of 11.57 acres of chamise chaparral would need to be mitigated at a ratio of 0.5:1. Therefore the preservation of 5.78 acres within the remaining 13.63 acres of this habitat within open space that is available for mitigation will reduce the level of impact to this habitat to below a level of significance. Preservation will be in the form of a dedicated and managed open space easement.

Non-Native Grassland (Habitat Code 42200)

The loss of 27.61 acres of non-native grassland onsite would require mitigation at a 1:1 ratio or 27.61 acres. Implementation of 1:1 mitigation accounts for 0.5:1 mitigation for impacts to non-native grassland habitat and an additional 0.5:1 mitigation for impacts associated with the loss of raptor foraging lands in the Ramona Grasslands area. Onsite preservation of 5.93 acres available for mitigation onsite partially mitigates for this impact. An additional 21.68 acres of non-native grassland offsite is required to fully mitigate for this impact. Although the Nature Conservancy and other entities have purchased some of the Ramona Grasslands for preservation, sufficient grasslands are still available to support this mitigation. Specifically, approximately 197 acres of Ramona Grasslands are privately held as three large parcels. This does not include any of the smaller parcels in the region. Therefore, sufficient lands currently exist in the area to meet the objective of this mitigation measure.

If the wetland impacts for offsite road impacts are mitigated on the Montecito Ranch site additional impacts to non-native grasslands will occur that require mitigation. If the wetland mitigation occurs on Montecito Ranch, mitigation for altered non-native grassland will be required at a 2:1 ratio since the proposed mitigation site is already allocated for mitigation. This additional non-native grassland mitigation will include 0.48 acre of non-native grassland (0.24 acres at a 2:1 ratio accordingly). This mitigation will be required to be achieved either elsewhere onsite or on a parcel approved by the Director of Planning and Land Use.

Eucalyptus Woodland (Habitat Code 11100)

Impacts to eucalyptus woodland would not be considered significant and would not require mitigation.

Developed Habitat (Habitat Code 12000)

Impacts to developed habitat would not be considered significant and would not require mitigation.

Mitigated Impact Area (no habitat code)

Impacts to the area designated as “mitigated impact area” have already been mitigated for and therefore additional impacts considered here are not considered significant.

Non-wetland waters

Mitigation for impacts to non-wetland waters will occur through the mitigation of the existing habitat type. For example a non-wetland waters that supports coastal sage scrub has been mitigated through the coastal sage scrub mitigation requirements. In addition the avoidance of the majority of the non-wetland waters and the further protection and management of these resources through implementation of the RMP further reduces this significant impact to below a level of significance.

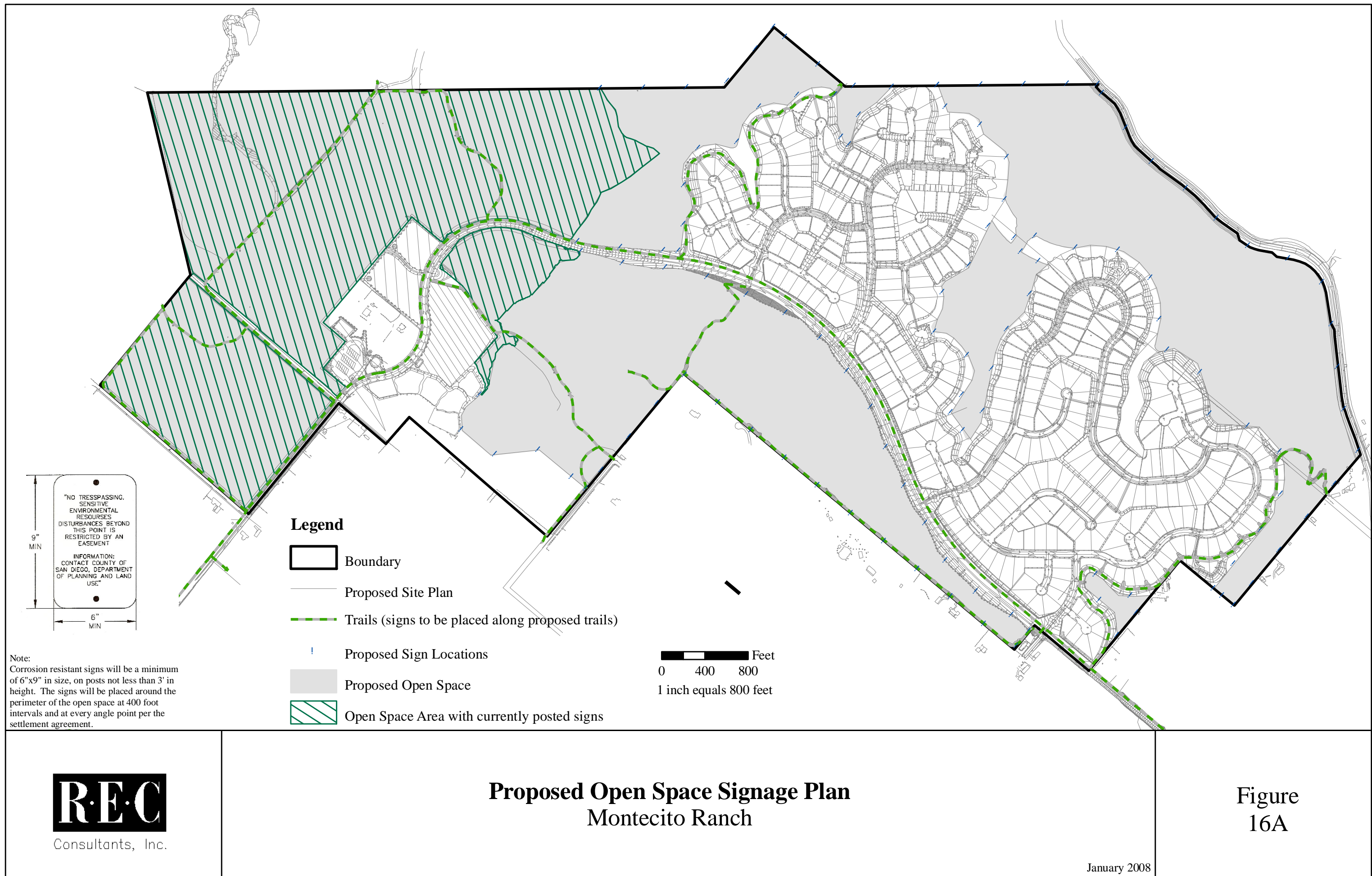
6.1.2 Mitigation for Sensitive Plants

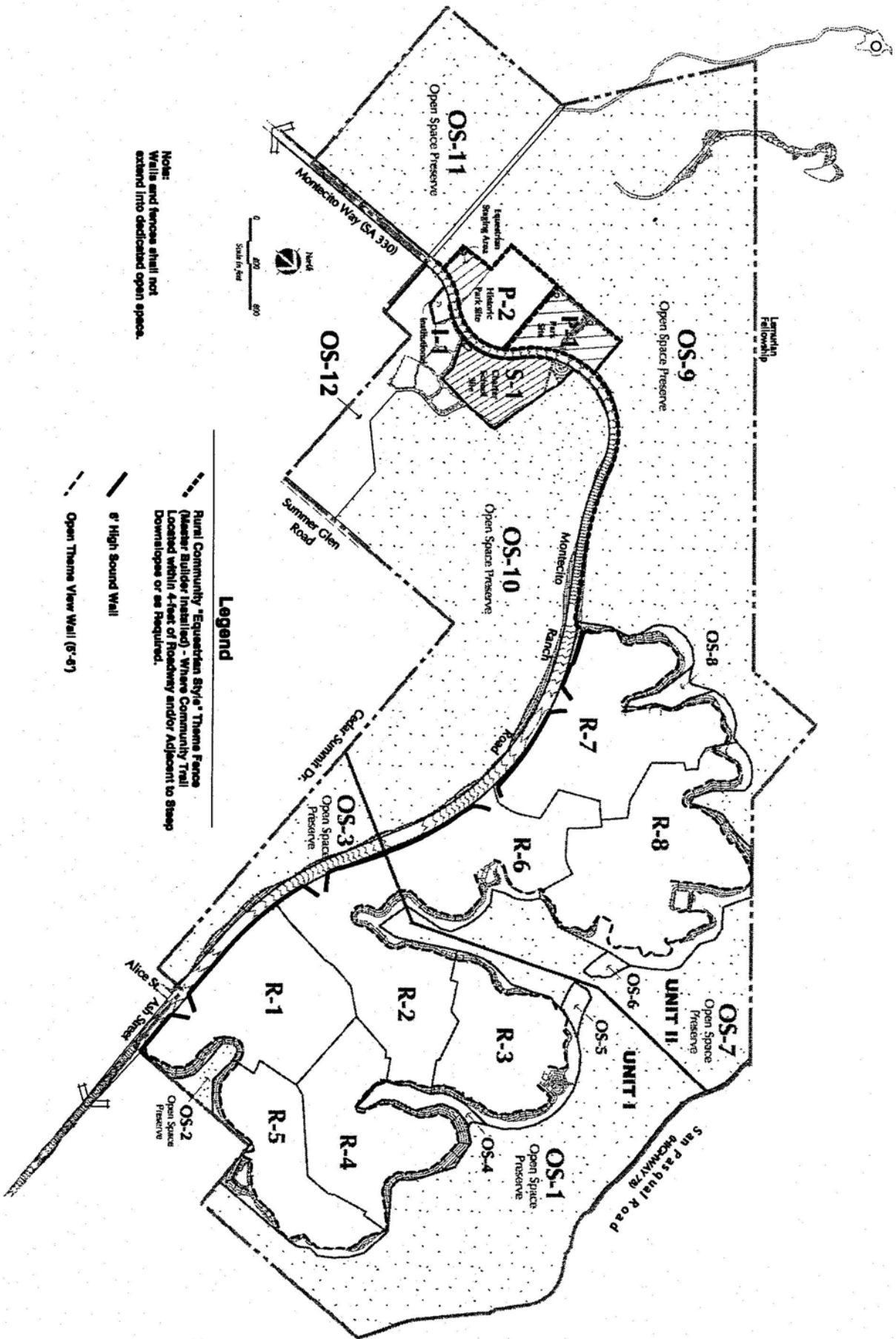
No direct impacts to sensitive plants are proposed as part of this project. There is a potential for indirect impacts to occur during construction and after the project is completed. Therefore, since no significant direct impacts are identified, no mitigation is required. Mitigation for potential indirect impacts is discussed below.

6.1.3 Mitigation for Wildlife

California gnatcatcher (*Polioptila californica californica*)

The loss of habitat for approximately 20 California gnatcatchers onsite would be considered significant and require mitigation. The onsite preservation of 249.62 acres of suitable and occupied California gnatcatcher habitat would reduce the level of impact to this species. Implementation of this mitigation reduces the level of impact to this species to below a level of significance.





Montecito Ranch

Fencing Plan

Major Use Permit
January 2007

FIGURE 16B

Raptors

Loss of 27.61 acres of non-native grassland habitat has been determined to be a significant impact due to loss of habitat for raptors. However, mitigation for non-native grasslands at 1:1 accounts for raptor mitigation through 0.5:1 for habitat mitigation and 0.5:1 for raptors.

6.2 Mitigation for Indirect Impacts Onsite

Hiking, mountain biking and equestrian trails through Diegan coastal sage scrub may result in indirect impacts beyond the clearing of vegetation associated with trail construction. Increased human presence may result in adverse edge effects, including the risk of trampling of vegetation along trail edges, unauthorized entrance into habitats adjacent to trails, noise and activity that may disrupt breeding by resident native species, trash and litter, introduction of exotic plant and animal species along the edges of trails, and increased fire risk. To inhibit unauthorized encroachment, it is recommended that signage be installed along the limited portions of the trail system adjacent to native habitat areas that are of high risk of encroachment (e.g., where the habitat is relatively open or where game trails may resemble pedestrian trails). Signage and fencing plans are included as Figure 16a and b. In addition, highly sensitive areas along the trail should be posted with off-limits signs that also explain why the area should be avoided. The trail follows existing trails where possible such that additional impacts do not occur. The trails will have signs posted along the trail prohibiting access and will be fenced with trail fencing (lodgepole fence) at select locations to further hinder encroachment into the open space. In addition, backyard fencing will further discourage encroachment into the open space. Implementation of the Habitat Management Plan will reduce any potential indirect impacts to less than significant.

The following general mitigation measures should be applied to the project to protect the resources during construction:

1. All lands proposed for open space will be dedicated in an Open Space Easement as shown on Figure 15.
2. The limited building zone as shown on Figure 15 will be dedicated.
3. A Resource Management Plan for all remaining open space must be prepared.
4. The applicant will participate in a Lighting and Maintenance District as the funding mechanism for the long term management of open space.
5. Biological monitoring of clearing and grading should be conducted.
6. To avoid noise related impacts no grading or clearing will be allowed within 300 feet of coastal sage scrub during California gnatcatcher breeding season (February 15 - August 30) or within 300 feet of an occupied raptor nest between February 15 and July 15. This measure can be waived if pre-grading surveys showed that no gnatcatchers are present

and there are no active raptor nests. In addition, avoidance of construction within 300 feet of suitable California gnatcatcher during this species breeding season will further reduce indirect impacts to this species.

7. Prior to grading sufficient evidence must be provided to the County Director of Planning that all state and federal wetland and endangered species permits have been obtained or that none are needed.
8. Prior to occupancy, a “backyard” fence will be installed creating a permanent barrier between the yards and the open space. This fence will be a minimum 5 to 6 feet high and be of sufficient material to detract trespassing into the open space.

6.3 Mitigation for Offsite Impacts

Mitigation for Offsite Roadway and Utility Improvements

The following tables summarize the impacts and mitigation for impacts associated with improvements to existing roadways and construction of the offsite roadway improvements.

| Table 13 Summary of Impact and Mitigation for Offsite Roadway and Utility Improvements | | | |
|---|-----------------------|-------------------------|----------------------------|
| Habitat Type | Direct Impacts | Mitigation Ratio | Mitigation Required |
| Riparian Woodland | 0.24 | 3:1 | 0.72 |
| Diegan Coastal Sage Scrub | 2.2 (water tank) | 2:1 | 4.4 |
| Non-native Grassland | 5.0 | 1:1 | 5.0 |
| Agriculture/Pasture | 2.10 | 1:1 | 2.10 |
| Eucalyptus | 1.64 | 0:1 | 0 |
| Disturbed/Developed | 3.89 /11.87 | 0:1 | 0 |
| TOTAL | 26.63 | | 12.22 |

Significant direct impacts will occur to riparian woodland, Diegan coastal sage scrub, non-native grassland and pasture as part of the offsite roadway improvements. Mitigation for these impacts summarized above will be conducted on the Montecito Ranch site. Sufficient acreage for coastal sage scrub occurs on Montecito Ranch to be used to offset this impact. Purchase of mitigation for non-native grassland and pasture will be required to be offset at an offsite property or bank as approved by the Director of Planning and Land Use.

Wetland mitigation is proposed to be conducted on Montecito Ranch in the proposed open space that will be dedicated under a separate action. This area is already proposed to have a riparian scrub habitat created onsite as part of a separate mitigation project. The creation component of the offsite wetland mitigation will require the additional creation of 0.24 acres of riparian scrub habitat onsite. The remaining 2:1 (0.48 acre) will be in the form of enhancement to Southern Coast Live Oak Riparian Forest onsite or other wetland area (such as the agriculture ponds or the small drainage at the east end of the property).

Although these habitats are protected under RPO there is no provision in RPO that does not allow for enhancement of existing habitats to better the overall open space design. Appendix N shows a conceptual revegetation/enhancement plan outline for this mitigation.

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End of Section 6.0

7.0 ALTERNATIVES ANALYSIS

Table 14 summarizes each development alternative discussed below with pertinent habitat acreages for each. In addition, each development alternative is shown on figures 17a through 17c.

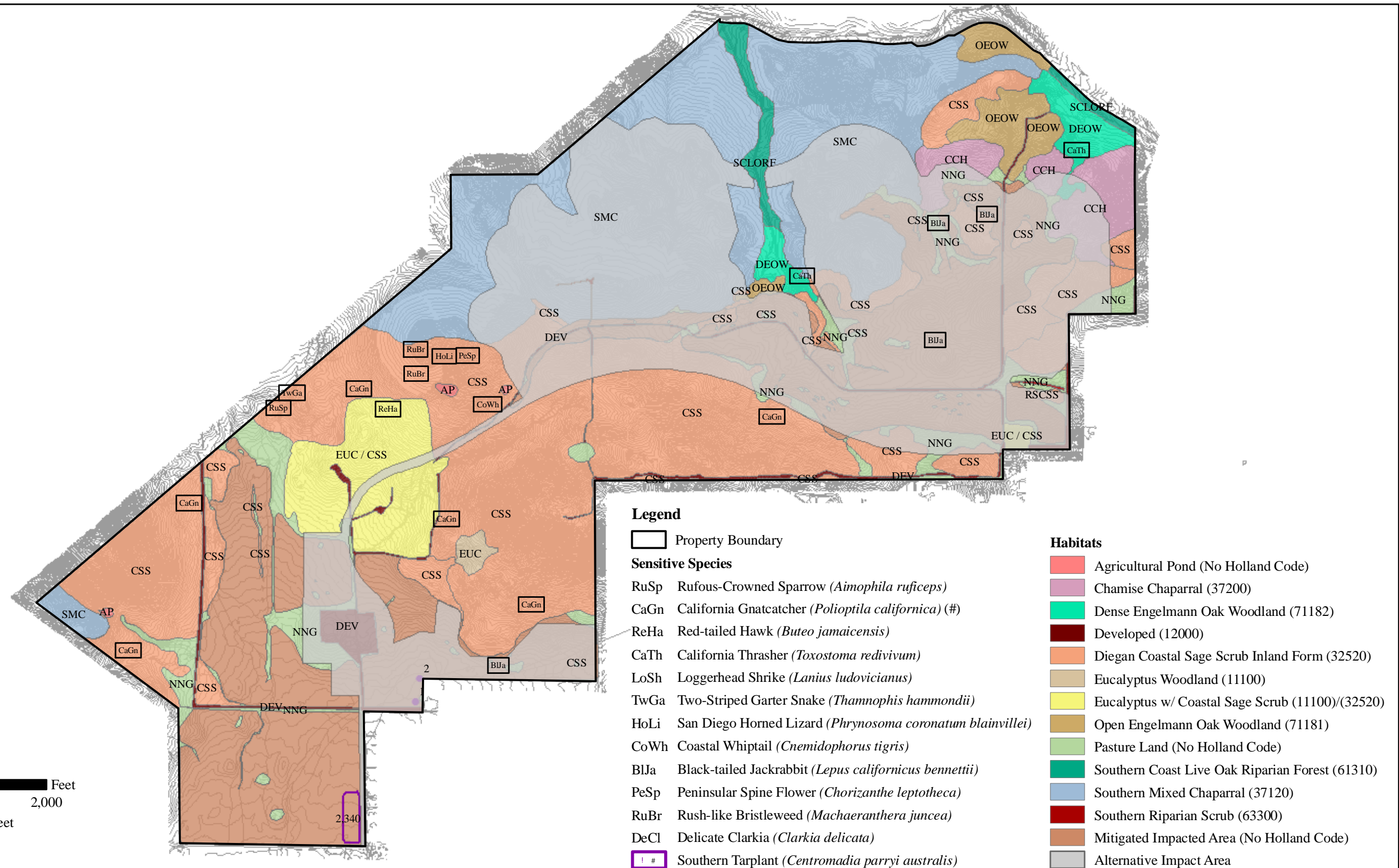
No Project–No Development Alternative

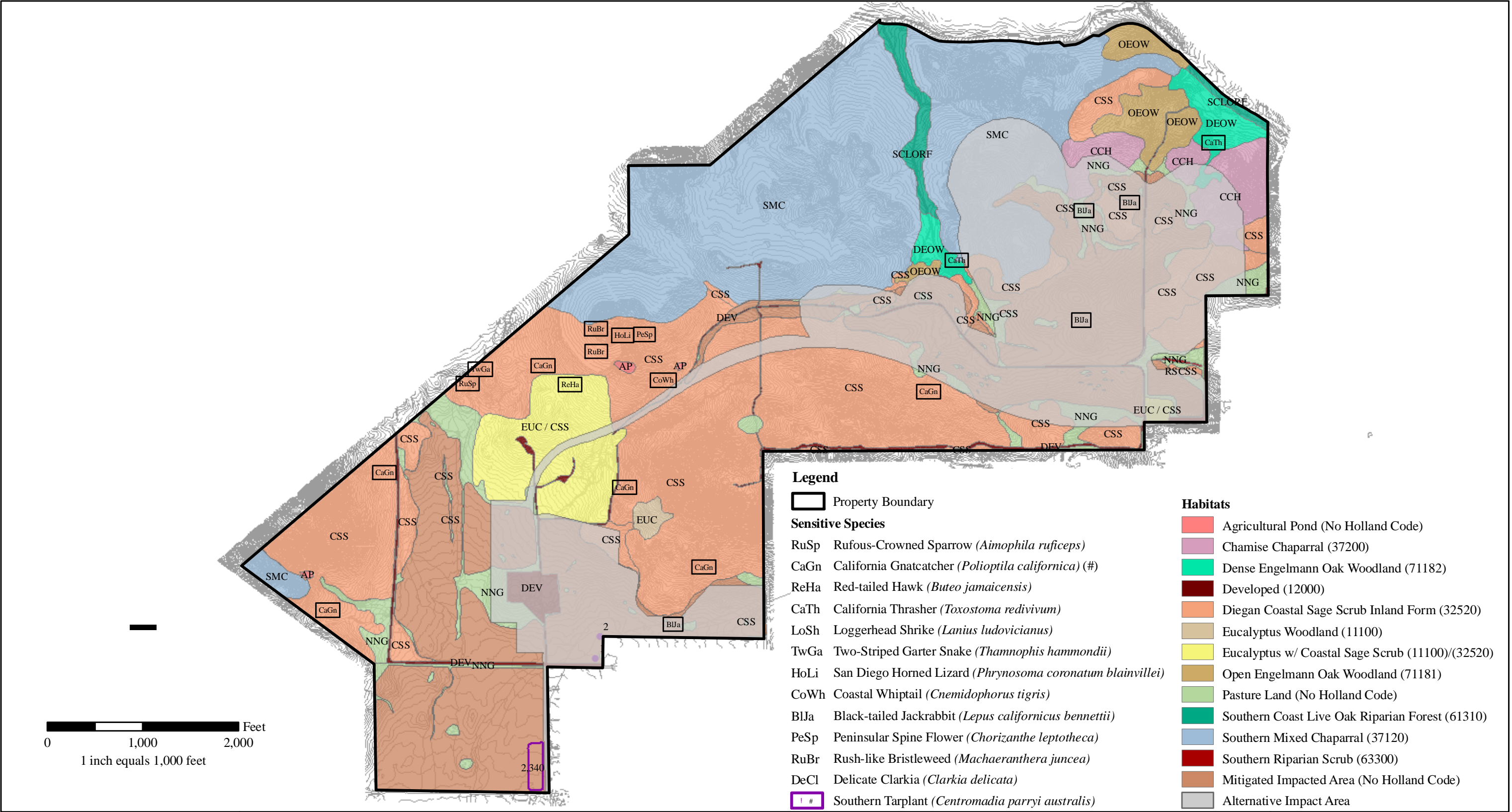
The No Project–No Development Alternative assumes that the Project site continues in an undeveloped state over the long-term, with portions of the site under agricultural use. Under this alternative, the Project site would remain in its current condition of native and non-native habitats, with the potential for continued dry farming of oat hay and/or cattle grazing. The 617.2 acres of native habitat throughout the site would remain, as would agricultural support facilities and service roads. The Proposed Project would not be constructed, including supporting infrastructure (i.e., roadways and utilities connections), nor would the proposed charter high school site, local park site, or open space preserve areas be created. Additionally, the historic Montecito Ranch House would not be dedicated within a historic park site and would remain on-site in its current condition.

Implementation of this alternative would result in no additional impacts to native habitats but would allow for the continued impact to the non-native grasslands onsite. In addition, no offsite impacts to sensitive habitats would occur.

No Project–Development Per Legal Parcels Alternative

The No Project–Development Per Legal Parcels Alternative assumes that the existing legal parcels within the Montecito Ranch planning area would gradually develop via a series of applications from separate property owners according to the existing zoning for the site. Based on existing zoning, this could result in development of an estimated maximum of 196 single-family residential units on minimum 2- to 4-acre lots. Dedication of an historical park site containing the Montecito Ranch House would also likely be required under this alternative. Topographical constraints also were considered during the drawing of this conceptual plan, with lots containing steep slopes assumed to be a minimum of four acres. This alternative would not include a local park, charter high school site, or wastewater reclamation facility, and would result in less on-site open space than the Proposed Project. It is assumed that no off-site roadway improvements would be built as part of this alternative; each smaller development would likely pay a fair share toward the improvement of impacted roadways and intersections. The properties would use water wells and septic tanks; therefore, this alternative would not include the on-site wastewater reclamation facility or the off-site water storage tank and associated pipeline, access road, and water booster pump station.

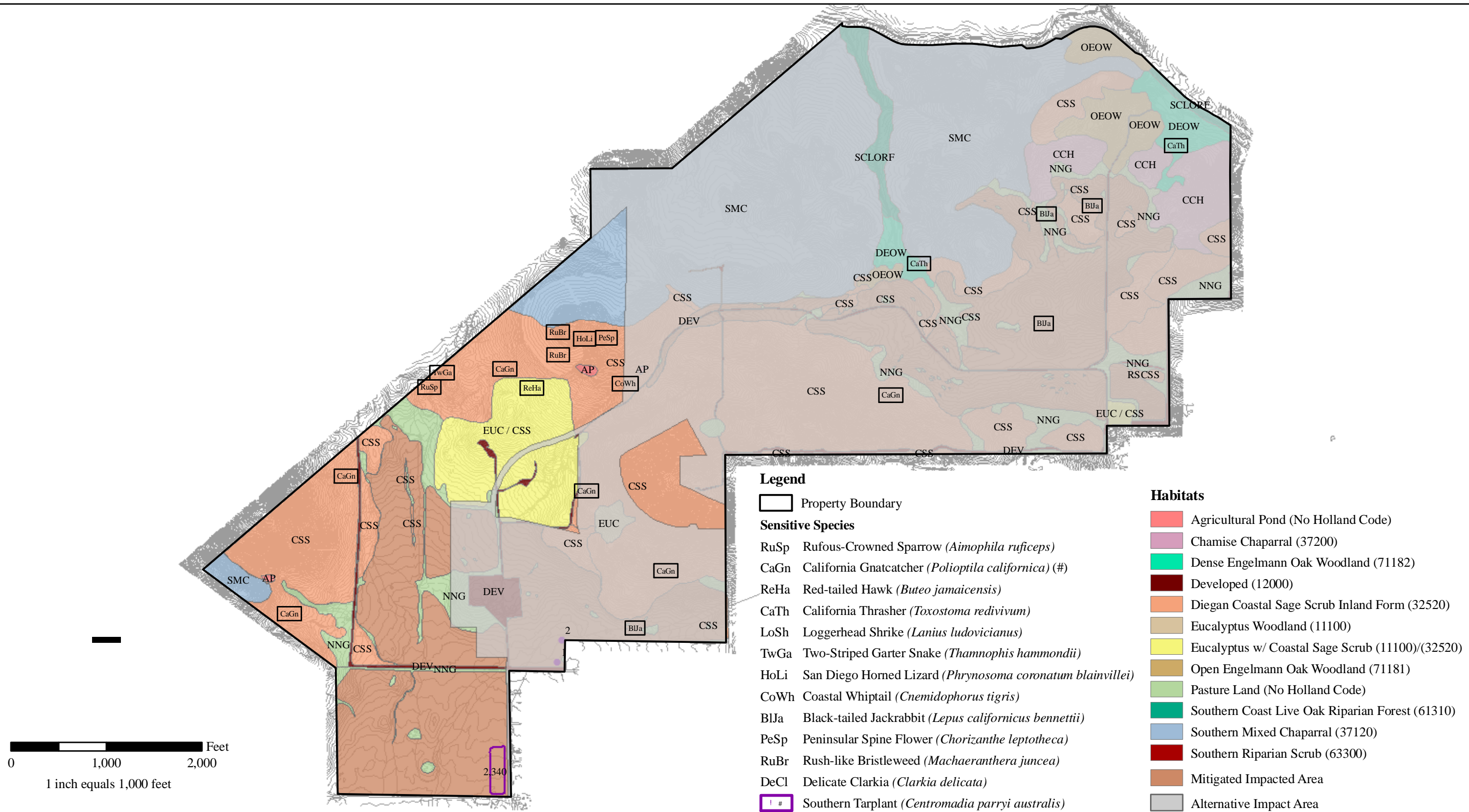




Consultants, Inc.

Reduce Development Footprint Alternative Montecito Ranch

Figure
17B



Implementation of this alternative would have the potential to result in impacts greater than the proposed project to biological resources. Total habitat loss due this alternative would equal 661.84 acres with significant impacts to woodlands, wetlands and grasslands.

Reduced Development Footprint Alternative

The Reduced Development Footprint Alternative would include 417 single-family residential units on minimum 10,000-square foot lots. In addition, this alternative would retain the same park sites, charter high school site and wastewater reclamation facility as the Proposed Project. Because this alternative would have a smaller residential development footprint, more open space would be provided than under the Proposed Project. Open space easements would encompass areas such as sensitive biological habitats, important archaeological resources, steep slopes, buffers, and other environmentally sensitive areas to create viable wildlife corridors and linkages, with no development permitted in the open space easements. All off-site roadway and utility improvements under this alternative would be the same as those described for the Proposed Project.

Implementation of this alternative would result in a reduction of impacts to biological resources of 121 acres, the majority of which would be to Southern mixed chaparral. This alternative would allow for a large block of open space habitat in the central portion of the project but would still have significant impacts to coastal sage scrub and non-native grasslands.

Reduced Density Alternative

The Reduced Density Alternative would develop 244 single-family residential units on minimum 1-acre lots. While the overall site density under this alternative would be lower than that identified for the Proposed Project, the development footprint and open space areas would be similar, except that there would be no dedication of a charter high school site, with this land instead being preserved as additional open space. This alternative would include the same historic park site, local park, and wastewater reclamation facility as noted for the Proposed Project. Open space easements would encompass areas such as sensitive biological habitats, important archaeological resources, steep slopes, buffers and other environmentally sensitive areas to create viable wildlife corridors and linkages, with no development permitted in the open space easements. Montecito Road would not be widened under this alternative. All other off-site road and utility improvements would be the same as those described for the Proposed Project.

This alternative would result in a similar footprint to the proposed project. Therefore, similar habitat impacts would occur. There may be reduced indirect impacts due to the decrease in number of homes built and therefore lower

potential for encroachment into open space. However this reduction is not expected to reduce impacts to below a level of significance.

Closed Water System Alternative

The Closed Water System Alternative design would be the same as the Proposed Project, except that the off-site water storage tank, and the associated pipeline and access road, would not be constructed. The water line connections to the project site and the water booster pump station south of the Montecito Way/Montecito Road intersection would still be required, and the booster pump station would be expanded to include a holding/surge tank on the 10,000 square foot lot.

Removal of the offsite water storage tank would result in a reduction of impacts to coastal sage scrub habitat.

Table 14
Summary of Impact Comparison
Between Proposed Project and Alternatives

| Habitat Type | Project alternative Impact Acres | | | |
|---|---|--------------------------------------|---------------------------------|------------------------|
| | Proposed Project | Development per Legal Parcels | Reduced Developed Design | Reduced Density |
| Southern Coast Live Oak riparian Forest | 0 | 9.43 | 0 | 0 |
| Open Engelmann Oak Woodland | 0.39 | 18.23 | 0.20 | 0.33 |
| Dense Engelmann Oak Woodland | 0.93 | 13.50 | 0.78 | 0.79 |
| Southern Riparian Scrub | 0 | 0.22 | 0 | 0 |
| Disturbed Wetland (ag ponds) | 0 | 0.11 | 0 | 0 |
| Diegan Coastal Sage Scrub | 69.31 | 179.77 | 44.89 | 54.29 |
| Southern Mixed Chaparral | 123.27 | 207 | 34.19 | 123.98 |
| Chamise Chaparral | 11.57 | 25.19 | 10.87 | 11.01 |
| Non-native Grassland | 27.61 | 34.58 | 25.41 | 25.53 |
| Eucalyptus Woodland | 0.14 | 2.50 | 0 | 0 |
| Developed | 13.19 | 15.56 | 10.88 | 11.41 |
| Mitigated Impact Area | 150.63 | 151.14 | 144.56 | 140.13 |
| | | | | |
| TOTALS | 397.04 | 657.23 | 271.78 | 367.47 |

End of Section 7.0

8.0 REFERENCES

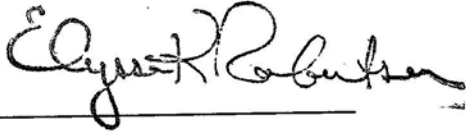
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9.0 CERTIFICATION

This report has been prepared by Elyssa Robertson.

A handwritten signature in black ink, reading "Elyssa Robertson", written over a horizontal line.

Elyssa Robertson
Certified Biologist

APPENDIX A

**PLANTS OBSERVED ON THE
MONTECITO RANCH PROPERTY**

| APPENDIX A PLANT SPECIES OBSERVED ON THE MONTECITO RANCH PROPERTY | | |
|--|--|---|
| Species | Common Name | Family |
| <i>Achnatherum coronatum</i> | giant stipa | <i>Poaceae</i> |
| <i>Acourtia microcephala</i> | sacapellote | <i>Asteraceae</i> |
| <i>Adenostoma fasciculatum</i> | chamise | <i>Rosaceae</i> |
| <i>Adiantum jordanii</i> | California maiden-hair | <i>Pteridaceae</i> [<i>Polypodiaceae</i>] |
| <i>Ailanthus altissima</i> * | tree of heaven | <i>Simaroubaceae</i> |
| <i>Allium peninsulare</i> var. <i>peninsulare</i> | red-flowered onion | <i>Alliaceae</i> [<i>Liliaceae</i>] |
| <i>Allophylum glutinosum</i> | blue false-gilia | <i>Polemoniaceae</i> |
| <i>Ambrosia psilostachya</i> | western ragweed | <i>Asteraceae</i> |
| <i>Amsinckia menziesii</i> var. <i>menziesii</i> | rigid fiddleneck | <i>Boraginaceae</i> |
| <i>Anagallis arvensis</i> * | scarlet pimpernel | <i>Primulaceae</i> |
| <i>Anthemis cotula</i> * | mayweed, stinkweed, dog-fennel | <i>Asteraceae</i> |
| <i>Antirrhinum coulterianum</i> | Coulter's snapdragon | <i>Scrophulariaceae</i> |
| <i>Antirrhinum nuttallianum</i> ssp. <i>nuttallianum</i> | Nuttall's snapdragon | <i>Scrophulariaceae</i> |
| <i>Apiastrum angustifolium</i> | mock parsley | <i>Apiaceae</i> |
| <i>Artemisia californica</i> | coastal sagebrush | <i>Asteraceae</i> |
| <i>Artemisia douglasiana</i> | Douglas mugwort | <i>Asteraceae</i> |
| <i>Asclepias californica</i> | California milkweed, round-hooded milkweed | <i>Asclepiadaceae</i> |
| <i>Baccharis pilularis</i> | chaparral broom, coyote brush | <i>Asteraceae</i> |
| <i>Baccharis salicifolia</i> | mulefat, seep-willow | <i>Asteraceae</i> |
| <i>Baccharis sarothroides</i> | broom Baccharis | <i>Asteraceae</i> |
| <i>Bloomeria crocea</i> ssp. <i>crocea</i> | common goldenstar | <i>Themidaceae</i> [<i>Liliaceae</i>] |
| <i>Brassica nigra</i> * | black mustard | <i>Brassicaceae</i> |
| <i>Brickellia californica</i> | brickellbush | <i>Asteraceae</i> |
| <i>Bromus diandrus</i> * | ripgut grass | <i>Poaceae</i> |
| <i>Bromus hordeaceus</i> * | soft chess | <i>Poaceae</i> |
| <i>Bromus madritensis</i> ssp. <i>rubens</i> * | foxtail chess | <i>Poaceae</i> |
| <i>Calandrinia ciliata</i> | red maids | <i>Portulacaceae</i> |
| <i>Calochortus splendens</i> | splendid mariposa lily | <i>Liliaceae</i> |
| <i>Calochortus weedii</i> var. <i>weedii</i> | Weed's mariposa lily | <i>Liliaceae</i> |
| <i>Calystegia macrostegia</i> | morning-glory | <i>Convolvulaceae</i> |
| <i>Camissonia bistorta</i> | California sun cup | <i>Onagraceae</i> |
| <i>Camissonia californica</i> | false-mustard | <i>Onagraceae</i> |
| <i>Camissonia hirtella</i> | field sun cup | <i>Onagraceae</i> |
| <i>Camissonia</i> sp. | sun cup | <i>Onagraceae</i> |
| <i>Camissonia strigulosa</i> | - | <i>Onagraceae</i> |
| <i>Carex spissa</i> | San Diego sedge | <i>Cyperaceae</i> |
| <i>Castilleja affinis</i> ssp. <i>affinis</i> | coast paintbrush | <i>Scrophulariaceae</i> |
| <i>Castilleja exserta</i> ssp. <i>exserta</i> | purple owl's-clover | <i>Scrophulariaceae</i> |
| <i>Casuarina</i> sp. | Australian pine | <i>Casuarinaceae</i> |
| <i>Catalpa</i> sp.* | Catalpa (ornamental) | <i>Bignoniaceae</i> |
| <i>Caulanthus heterophyllus</i> var. <i>heterophyllus</i> | jewelflower | <i>Brassicaceae</i> |
| <i>Ceanothus crassifolius</i> | thick-leaf lilac, hoary-leaf-lilac | <i>Rhamnaceae</i> |
| <i>Ceanothus tomentosus</i> | Ramona-lilac | <i>Rhamnaceae</i> |
| <i>Centaurea melitensis</i> * | totalote | <i>Asteraceae</i> |

| Species | Common Name | Family |
|--|-------------------------------------|--|
| <i>Centaurium venustum</i> | canchalagua | <i>Gentianaceae</i> |
| <i>Cerastium glomeratum</i> * | mouse-ear chickweed | <i>Caryophyllaceae</i> |
| <i>Cercocarpus minutiflorus</i> | San Diego mountain-mahogany | <i>Rosaceae</i> |
| <i>Chaenactis artemisiifolia</i> | Artemisia pincushion | <i>Asteraceae</i> |
| <i>Chamaesyce polycarpa</i> | prostrate spurge | <i>Euphorbiaceae</i> |
| <i>Cheilanthes newberryi</i> | California cottonfern | <i>Pteridaceae</i> [<i>Polypodiaceae</i>] |
| <i>Chenopodium ambrosioides</i> * | Mexican tea | <i>Chenopodiaceae</i> |
| <i>Chenopodium californicum</i> | California goosefoot | <i>Chenopodiaceae</i> |
| <i>Chlorogalum parviflorum</i> | soap plant, amole | <i>Hyacinthaceae</i> [<i>Liliaceae</i>] |
| <i>Chorizanthe fimbriata</i> var. <i>fimbriata</i> | fringed spineflower | <i>Polygonaceae</i> |
| <i>Chorizanthe leptotheca</i> ! | Ramona spineflower | <i>Polygonaceae</i> |
| <i>Cirsium occidentale</i> car. <i>occidentale</i> | cobwebby thistle | <i>Asteraceae</i> |
| <i>Cistus creticus</i> * | Purple rock-rose | <i>Cistaceae</i> |
| <i>Clarkia delicata</i> ! | delicate Clarkia, Campo Clarkia | <i>Onagraceae</i> |
| <i>Clarkia epilobioides</i> | canyon godetia | <i>Onagraceae</i> |
| <i>Clarkia purpurea</i> ssp. <i>viminea</i> | large Clarkia | <i>Onagraceae</i> |
| <i>Claytonia perfoliata</i> ssp. <i>perfoliata</i> | miner's lettuce | <i>Portulacaceae</i> |
| <i>Clematis pauciflora</i> | ropevine, small-leaf virgin's bower | <i>Ranunculaceae</i> |
| <i>Cneoridium dumosum</i> | coast spice bush, bush-rue | <i>Rutaceae</i> |
| <i>Cnicus benedictus</i> * | blessed thistle | <i>Asteraceae</i> |
| <i>Crassula connata</i> | pygmy weed | <i>Crassulaceae</i> |
| <i>Cryptantha intermedia</i> | Nievas Cryptantha | <i>Boraginaceae</i> |
| <i>Cryptantha micromeres</i> | minute-flower Cryptantha | <i>Boraginaceae</i> |
| <i>Cryptantha muricata</i> | prickly Cryptantha | <i>Boraginaceae</i> |
| <i>Cuscuta</i> sp. | dodder | <i>Cuscutaceae</i> |
| <i>Cynodon dactylon</i> * | Bermuda grass | <i>Poaceae</i> |
| <i>Datura wrightii</i> | - | <i>Solanaceae</i> |
| <i>Daucus pusillus</i> | rattlesnake weed | <i>Apiaceae</i> |
| <i>Deinandra fasciculata</i> | fascicled tarweed | <i>Asteraceae</i> |
| <i>Delphinium parryi</i> spp. <i>parryi</i> | Parry's larkspur | <i>Ranunculaceae</i> |
| <i>Dichelostemma capitatum</i> ssp. <i>capitatum</i> | blue dicks | <i>Themidaceae</i> [<i>Liliaceae</i>] |
| <i>Distichlis spicata</i> | saltgrass | <i>Poaceae</i> |
| <i>Dodecatheon clevelandii</i> spp. <i>clevelandii</i> | Padre's shooting star | <i>Primulaceae</i> |
| <i>Dryopteris arguta</i> | coastal wood fern | <i>Dryopteridaceae</i> [<i>Polypodiaceae</i>] |
| <i>Dudleya pulverulenta</i> | Dudleya | <i>Crassulaceae</i> |
| <i>Eleocharis macrostachya</i> | pale spike-sedge | <i>Cyperaceae</i> |
| <i>Emmenanthe penduliflora</i> | whispering bells | <i>Hydrophyllaceae</i> |
| <i>Epilobium canum</i> ssp. <i>canum</i> | California fuschia, zauschneria | <i>Onagraceae</i> |
| <i>Eremocarpus setigerus</i> | doveweed | <i>Euphorbiaceae</i> |
| <i>Erigeron foliosus</i> var. <i>foliosus</i> | leafy daisy | <i>Asteraceae</i> |
| <i>Eriogonum fasciculatum</i> var. <i>fasciculatum</i> | California buckwheat | <i>Polygonaceae</i> |
| <i>Eriogonum fasciculatum</i> var. <i>polifolium</i> | (rosemary flat-top buckwheat) | <i>Polygonaceae</i> |

| Species | Common Name | Family |
|---|---|-------------------------|
| <i>Eriophyllum confertiflorum</i> var. <i>confertiflorum</i> | long-stem golden-yarrow | <i>Asteraceae</i> |
| <i>Erodium botrys</i> * | long-beak filaree, long-beak storksbill | <i>Geraniaceae</i> |
| <i>Erodium cicutarium</i> * | red-stem filaree, red-stem storksbill | <i>Geraniaceae</i> |
| <i>Eschscholzia californica</i> | California poppy | <i>Papaveraceae</i> |
| <i>Eucalyptus</i> sp.* | Eucalyptus sp. | <i>Myrtaceae</i> |
| <i>Eucrypta chrysanthemifolia</i> var. <i>chrysanthemifolia</i> | Eucrypta | <i>Hydrophyllaceae</i> |
| <i>Filago californica</i> | California Filago | <i>Asteraceae</i> |
| <i>Filago gallica</i> * | narrow-leaf Filago | <i>Asteraceae</i> |
| <i>Foeniculum vulgare</i> * | sweet fennel | <i>Apiaceae</i> |
| <i>Galium angustifolium</i> ssp. <i>angustifolium</i> | narrow-leaf bedstraw | <i>Rubiaceae</i> |
| <i>Galium aparine</i> * | common bedstraw, goose grass | <i>Rubiaceae</i> |
| <i>Gilia angelensis</i> | grassland Gilia | <i>Polemoniaceae</i> |
| <i>Gnaphalium bicolor</i> | bicolor cudweed | <i>Asteraceae</i> |
| <i>Gnaphalium californicum</i> | California everlasting | <i>Asteraceae</i> |
| <i>Gutierrezia sarothrae</i> | broom matchweed, snakeweed | <i>Asteraceae</i> |
| <i>Hazardia squarrosa</i> var. <i>grindelioides</i> | sawtooth goldenbush | <i>Asteraceae</i> |
| <i>Hedypnois cretica</i> * | Crete Hedypnois | <i>Asteraceae</i> |
| <i>Helianthemum scoparium</i> | peak rush-rose | <i>Cistaceae</i> |
| <i>Helianthus gracilentus</i> | slender sunflower | <i>Asteraceae</i> |
| <i>Heliotropium curassavicum</i> | salt heliotrope | <i>Boraginaceae</i> |
| <i>Heteromeles arbutifolia</i> | toyon, Christmas berry | <i>Rosaceae</i> |
| <i>Heterotheca grandiflora</i> | telegraph weed | <i>Asteraceae</i> |
| <i>Hirschfeldia incana</i> * | short-pod mustard | <i>Brassicaceae</i> |
| <i>Hordeum vulgare</i> var. <i>trifurcatum</i> * | cultivated barley | <i>Poaceae</i> |
| <i>Hypochaeris glabra</i> * | smooth cat's ear | <i>Asteraceae</i> |
| <i>Isocoma menziesii</i> var. <i>menziesii</i> | spreading goldenbush | <i>Asteraceae</i> |
| <i>Juncus bufonius</i> | toad rush | <i>Juncaceae</i> |
| <i>Juncus mexicanus</i> | Mexican rush | <i>Juncaceae</i> |
| <i>Juncus textilis</i> | basket rush | <i>Juncaceae</i> |
| <i>Juncus xiphioides</i> | iris-leaf rush | <i>Juncaceae</i> |
| <i>Keckiella antirrhinoides</i> var. <i>antirrhinoides</i> | yellow bush penstemon | <i>Scrophulariaceae</i> |
| <i>Lactuca serriola</i> * | prickly lettuce | <i>Asteraceae</i> |
| <i>Lamarckia aurea</i> * | goldentop | <i>Poaceae</i> |
| <i>Lasthenia californica</i> | common goldfields | <i>Asteraceae</i> |
| <i>Lathyrus vestitus</i> var. <i>alefeldii</i> | San Diego sweet pea | <i>Fabaceae</i> |
| <i>Lepidium oblongum</i> | peppergrass | <i>Brassicaceae</i> |
| <i>Lessingia filaginifolia</i> var. <i>filaginifolia</i> | - | <i>Asteraceae</i> |
| <i>Leymus condensatus</i> | giant wild rye | <i>Poaceae</i> |
| <i>Linaria canadensis</i> | large blue toadflax | <i>Scrophulariaceae</i> |
| <i>Lithophragma affine</i> | woodland star | <i>Saxifragaceae</i> |
| <i>Loeflingia squarrosa</i> var. <i>squarrosa</i> | California Loeflingia | <i>Caryophyllaceae</i> |
| <i>Lolium perenne</i> * | perennial ryegrass | <i>Poaceae</i> |
| <i>Lolium</i> sp.* | ryegrass | <i>Poaceae</i> |

| Species | Common Name | Family |
|--|---|-----------------------------|
| <i>Lomatium utriculatum</i> | common Lomatium | Apiaceae |
| <i>Lonicera subspicata</i> var. <i>denudata</i> | southern honeysuckle | Caprifoliaceae |
| <i>Lotus argophyllus</i> var. <i>argophyllus</i> | silver-leaf lotus | Fabaceae |
| <i>Lotus purshianus</i> var. <i>purshianus</i> | Spanish-clover | Fabaceae |
| <i>Lotus scoparius</i> var. <i>scoparius</i> | coast deerweed | Fabaceae |
| <i>Lupinus bicolor</i> | miniature lupine | Fabaceae |
| <i>Lupinus hirsutissimus</i> | stinging lupine | Fabaceae |
| <i>Lupinus truncatus</i> | collar lupine | Fabaceae |
| <i>Lythrum hyssopifolium</i> * | grass poly | Lythraceae |
| <i>Machaeranthera juncea</i> ! | rush chaparral-star, rush-like bristleweed | Asteraceae |
| <i>Madia exigua</i> | pygmy/threadstem Madia | Asteraceae |
| <i>Malacothamnus fasciculatus</i> | chaparral bushmallow | Malvaceae |
| <i>Malosma laurina</i> | laurel sumac | Anacardiaceae |
| <i>Malva parviflora</i> * | cheeseweed | Malvaceae |
| <i>Marah macrocarpus</i> var. <i>macrocarpus</i> | wild cucumber, man-root | Cucurbitaceae |
| <i>Marrubium vulgare</i> * | horehound | Lamiaceae |
| <i>Medicago polymorpha</i> * | California burclover | Fabaceae |
| <i>Melica frutescens</i> | tall melic | Poaceae |
| <i>Melica imperfecta</i> | coast range melic | Poaceae |
| <i>Mimulus aurantiacus</i> | coast monkey flower | Scrophulariaceae |
| <i>Mimulus brevipes</i> | slope semiphore | Scrophulariaceae |
| <i>Mimulus guttatus</i> | seep monkey flower | Scrophulariaceae |
| <i>Mimulus pilosus</i> | downy monkey flower | Scrophulariaceae |
| <i>Mirabilis laevis</i> var. <i>crassifolia</i> | coastal wishbone bush | Nyctaginaceae |
| <i>Muhlenbergia microsperma</i> | littleseed muhly | Poaceae |
| <i>Muhlenbergia rigens</i> | deergrass | Poaceae |
| <i>Muilla maritima</i> | common Muilla | Themidaceae [Liliaceae] |
| <i>Nassella pulchra</i> | purple needlegrass | Poaceae |
| <i>Navarretia hamata</i> ssp. <i>hamata</i> | hooked skunkweed | Polemoniaceae |
| <i>Nemophila menziesii</i> var. <i>menziesii</i> | baby blue eyes | Hydrophyllaceae |
| <i>Nicotiana glauca</i> * | tree tobacco | Solanaceae |
| <i>Olea europaea</i> * | olive | Oleaceae |
| <i>Opuntia littoralis</i> | coast prickly-pear | Cactaceae |
| <i>Osmadenia tenella</i> | Osmadenia | Asteraceae |
| <i>Oxalis pes-caprae</i> * | Bermuda buttercup | Oxalidaceae |
| <i>Paeonia californica</i> | California peony | Paeoniaceae |
| <i>Pectocarya linearis</i> ssp. <i>ferocula</i> | slender Pectocarya | Boraginaceae |
| <i>Pellaea andromedifolia</i> | coffee fern | Pteridaceae [Polypodiaceae] |
| <i>Pellaea mucronata</i> var. <i>mucronata</i> | bird's-foot cliff-brake | Pteridaceae [Polypodiaceae] |
| <i>Pentagramma triangularis</i> ssp. <i>triangularis</i> | California goldenback fern | Pteridaceae [Polypodiaceae] |
| <i>Phacelia cicutaria</i> var. <i>hispida</i> | caterpillar Phacelia | Hydrophyllaceae |
| <i>Phacelia parryi</i> | - | Hydrophyllaceae |
| <i>Phalaris</i> sp. | canary grass | Poaceae |
| <i>Phoenix canariensis</i> * | Canary Island date palm | Arecaceae |
| <i>Picris echioides</i> * | bristly ox-tongue | Asteraceae |
| <i>Pinus</i> sp. | pine (ornamental) | Pinaceae |
| <i>Plantago elongata</i> | plantain | Plantaginaceae |

| Species | Common Name | Family |
|--|--|-------------------------|
| <i>Plantago erecta</i> | plantain | <i>Plantaginaceae</i> |
| <i>Platanus racemosa</i> | western sycamore | <i>Platanaceae</i> |
| <i>Polygonum arenastrum</i> * | common knotweed, doorweed | <i>Polygonaceae</i> |
| <i>Polypodium californicum</i> | California polypody | <i>Polypodiaceae</i> |
| <i>Polypogon monspeliensis</i> * | annual beard grass | <i>Poaceae</i> |
| <i>Populus fremontii</i> ssp. <i>fremontii</i> | western cottonwood | <i>Salicaceae</i> |
| <i>Porophyllum gracile</i> | odora | <i>Asteraceae</i> |
| <i>Potentilla glandulosa</i> ssp. <i>glandulosa</i> | sticky cinquefoil | <i>Rosaceae</i> |
| <i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i> | holly-leaf cherry, islay | <i>Rosaceae</i> |
| <i>Pterostegia drymarioides</i> | granny's hairnet | <i>Polygonaceae</i> |
| <i>Quercus agrifolia</i> var. <i>agrifolia</i> | coast live oak | <i>Fagaceae</i> |
| <i>Quercus berberidifolia</i> | scrub oak | <i>Fagaceae</i> |
| <i>Quercus engelmannii</i> ! | Engelmann/mesa blue oak | <i>Fagaceae</i> |
| <i>Rafinesquia californica</i> | California chicory | <i>Asteraceae</i> |
| <i>Raphanus sativus</i> * | wild radish | <i>Brassicaceae</i> |
| <i>Rhamnus crocea</i> | spiny redberry | <i>Rhamnaceae</i> |
| <i>Rhamnus ilicifolia</i> | holly-leaf redberry | <i>Rhamnaceae</i> |
| <i>Rhus ovata</i> | sugar bush | <i>Anacardiaceae</i> |
| <i>Rhus trilobata</i> | skunkbrush, pubescent basketbush | <i>Anacardiaceae</i> |
| <i>Ribes indecorum</i> | white flower currant | <i>Grossulariaceae</i> |
| <i>Rorippa nasturtium-aquaticum</i> | water-cress | <i>Brassicaceae</i> |
| <i>Rosa californica</i> | California rose | <i>Rosaceae</i> |
| <i>Rubus ursinus</i> | California blackberry | <i>Rosaceae</i> |
| <i>Rumex conglomeratus</i> * | whorled dock | <i>Polygonaceae</i> |
| <i>Rumex crispus</i> * | curly dock | <i>Polygonaceae</i> |
| <i>Rumex salicifolius</i> var. <i>denticulatus</i> | willow dock | <i>Polygonaceae</i> |
| <i>Salix exigua</i> | narrow-leaf willow | <i>Salicaceae</i> |
| <i>Salix gooddingii</i> | Goodding's black willow | <i>Salicaceae</i> |
| <i>Salix laevigata</i> | red willow | <i>Salicaceae</i> |
| <i>Salsola tragus</i> * | Russian thistle, tumbleweed | <i>Chenopodiaceae</i> |
| <i>Salvia apiana</i> | white sage | <i>Lamiaceae</i> |
| <i>Salvia columbariae</i> | chia | <i>Lamiaceae</i> |
| <i>Salvia mellifera</i> | black sage | <i>Lamiaceae</i> |
| <i>Sambucus mexicana</i> | blue elderberry | <i>Caprifoliaceae</i> |
| <i>Sanicula arguta</i> | sharp-tooth sanicle | <i>Apiaceae</i> |
| <i>Sanicula crassicaulis</i> | Pacific sanicle | <i>Apiaceae</i> |
| <i>Schinus molle</i> * | Peruvian pepper tree | <i>Anacardiaceae</i> |
| <i>Scrophularia californica</i> ssp. <i>floribunda</i> | California bee plant, California figwort | <i>Scrophulariaceae</i> |
| <i>Scutellaria tuberosa</i> | Danny's skullcap | <i>Lamiaceae</i> |
| <i>Selaginella bigelovii</i> | Bigelow's spike-moss | <i>Selaginellaceae</i> |
| <i>Sidalcea malvaeflora</i> ssp. <i>sparsifolia</i> | checker-bloom | <i>Malvaceae</i> |
| <i>Silene gallica</i> * | common catchfly | <i>Caryophyllaceae</i> |
| <i>Silybum marianum</i> * | milk thistle | <i>Asteraceae</i> |
| <i>Sisymbrium irio</i> * | London rocket | <i>Brassicaceae</i> |
| <i>Sisymbrium orientale</i> * | hare's-ear cabbage | <i>Brassicaceae</i> |
| <i>Sisyrinchium bellum</i> | blue-eyed-grass | <i>Iridaceae</i> |
| <i>Sonchus sp.</i> * | sow-thistle | <i>Asteraceae</i> |

| Species | Common Name | Family |
|---|---------------------------------------|---------------------------------------|
| <i>Spergula arvensis</i> spp. <i>arvensis</i> * | stickwort, starwort | <i>Caryophyllaceae</i> |
| <i>Spergularia bocconii</i> * | Buccone's sand-spurry | <i>Caryophyllaceae</i> |
| <i>Stachys ajugoides</i> var. <i>rigida</i> | hedge-nettle | <i>Lamiaceae</i> |
| <i>Stellaria media</i> * | common chickweed | <i>Caryophyllaceae</i> |
| <i>Stephanomeria exigua</i> ssp. <i>exigua</i> | small wreath-plant | <i>Asteraceae</i> |
| <i>Stylocline gnaphaloides</i> | everlasting nest straw | <i>Asteraceae</i> |
| <i>Tamarix</i> sp.* | tamarisk, salt-cedar | <i>Tamaricaceae</i> |
| <i>Taraxacum officinale</i> * | common dandelion | <i>Asteraceae</i> |
| <i>Thalictrum fendleri</i> var. <i>polycarpum</i> | Fendler's meadow-rue | <i>Ranunculaceae</i> |
| <i>Torilis arvensis</i> * | Japanese hedge-parsley | <i>Apiaceae</i> |
| <i>Toxicodendron diversilobum</i> | western poison-oak | <i>Anacardiaceae</i> |
| <i>Trichostema lanatum</i> | wooly bluecurls | <i>Lamiaceae</i> |
| <i>Ulmus</i> sp. | elm (ornamental) | <i>Ulmaceae</i> |
| <i>Uropappus lindleyi</i> | silver puffs | <i>Asteraceae</i> |
| <i>Verbena lasiostachys</i> | vervain | <i>Verbenaceae</i> |
| <i>Veronica peregrina</i> ssp. <i>xalapensis</i> | Mexican speedwell, purslane speedwell | <i>Scrophulariaceae</i> |
| <i>Vicia sativa</i> ssp. <i>nigra</i> * | narrow-leaved vetch, common vetch | <i>Fabaceae</i> |
| <i>Vicia villosa</i> * | hairy vetch, winter vetch | <i>Fabaceae</i> |
| <i>Viola pedunculata</i> | johnny jump-up | <i>Violaceae</i> |
| <i>Vitis girdiana</i> | desert wild grape | <i>Vitaceae</i> |
| <i>Vulpia myuros</i> var. <i>myuros</i> * | - | <i>Poaceae</i> |
| <i>Xylococcus bicolor</i> | mission manzanita | <i>Ericaceae</i> |
| <i>Yucca</i> sp. | Yucca (ornamental) | <i>Agavaceae</i> [<i>Liliaceae</i>] |
| <i>Yucca whipplei</i> | our lord's candle | <i>Agavaceae</i> [<i>Liliaceae</i>] |

* non-native species

! sensitive

APPENDIX B

WILDLIFE SPECIES OBSERVED ON THE MONTECITO RANCH PROPERTY

| APPENDIX B | | | |
|---|--|------------------------------|------------|
| WILDLIFE SPECIES OBSERVED ON THE MONTECITO RANCH PROPERTY | | | |
| Common Name | Scientific Name | Habitat Observed | # Observed |
| INVERTEBRATES | | | |
| Acmon blue | <i>Plebejus acmon</i> | CSS | 23 |
| Alfalfa butterfly | <i>Colias eurytheme</i> | CSS | 18 |
| Ant | Family <i>Formicidae</i> | CSS, CHAP, NNG, EUC, OW, DIS | Many |
| Bee | Family <i>Apidae</i> | CSS, EUC, NNG | Many |
| Behr's metalmark | <i>Apodemia mormo virgulti</i> | CSS | 40 |
| Buckeye | <i>Junonia coenia</i> | CSS | 10 |
| Bumble bee | <i>Bombus fervidus</i> | CSS, NNG | Many |
| Cabbage white | <i>Artogeia rapae</i> | CSS | 25 |
| California ringlet | <i>Coenonympha californica californica</i> | CSS | 3 |
| Common white | <i>Pontia protodice</i> | CSS | 45 |
| Cricket | Family <i>Gryllidae</i> | CSS, NNG | Several |
| Dragonfly | Suborder <i>Anisoptera</i> | CSS, NNG, EUC | 15 |
| Edward's blue | <i>Hemiargus ceraunus gyas</i> | CSS | 3 |
| Felder's orangetip | <i>Anthocharis cethura</i> | CSS | 3 |
| Fly | Family <i>Muscidae</i> | CSS, NNG, EUC, CHAP, OW | Many |
| Funereal duskywing | <i>Erynnis funeralis</i> | CSS | 34 |
| Gnats | Order <i>Diptera</i> | CSS | Many |
| Grasshopper | Family <i>Acrididae</i> | CSS, NNG | Many |
| Gray hairstreak | <i>Strymon melinus</i> | CSS | 4 |
| Harvester ant | <i>Pogonomyrmex rugosus</i> | CSS, NNG | Many |
| Honey bee | <i>Apis mellifera</i> | CSS | Many |
| June bug | Family <i>Scarabaeidae</i> | CSS | 3 |
| Ladybug | Family <i>Coccinellidae</i> | CSS, EUC | Several |
| Marine blue | <i>Leptotes marina</i> | CSS | 10 |
| Moths | Order <i>Lepidoptera</i> | CSS | Several |
| Mourning cloak | <i>Nymphalis antiopa</i> | CSS | 2 |
| Painted lady | <i>Vanessa cardui</i> | CSS | 70 |
| Perplexing hairstreak | <i>Callophrys perplexa</i> | CSS | 30 |
| Queen butterfly | <i>Danaus gilippus</i> | CSS | 2 |
| Red ant | <i>Formica</i> sp. | CSS, NNG, EUC | Many |
| Sara orangetip | <i>Anthocharis sara</i> | CSS, CHAP | 57 |
| Sonoran blue | <i>Philotes sonorensis</i> | CSS | 1 |
| Stinkbug | Family <i>Pentatomidae</i> | CSS, EUC | Many |
| Trantula hawk | <i>Hemipepsis</i> ssp. | CSS | Several |
| Unidentified Blue (flybys) | Subfamily <i>Plebejinae</i> | CSS | 25 |
| Unidentified Lady (flybys) | <i>Vanessa</i> sp. | CSS | 89 |
| Velvet ant | Family <i>Mutillidae</i> | CSS | Several |
| Virginia lady | <i>Vanessa virginiensis</i> | CSS | 6 |
| Wasp | Family <i>Vespidae</i> | CSS | 10+ |
| West Coast lady | <i>Vanessa annabella</i> | CSS | 10 |
| Western tiger swallowtail | <i>Papilio rutulus</i> | OW | 2 |
| AMPHIBIANS | | | |
| Pacific chorus frog | <i>Pseudacris regilla</i> | AG pond | Many |
| Western toad | <i>Bufo boreas</i> | AG pond | Many |

| Common Name | Scientific Name | Habitat Observed | # Observed |
|---------------------------------|--|--------------------------|------------|
| REPTILES | | | |
| California whipsnake | <i>Masticophis lateralis</i> | CSS | 1 |
| Coastal western whiptail! | <i>Cnemidophorus tigris multiscutatus</i> | CSS | 1 |
| San Diego horned lizard! | <i>Phrynosoma coronatum blainvillei</i> | CSS | 2 |
| Two-striped garter snake! | <i>Thamnophis hammondi</i> | CSS-ditch | 1 |
| Western fence lizard | <i>Sceloporus occidentalis</i> | CSS, CHAP | Many |
| BIRDS | | | |
| Acorn woodpecker | <i>Melanerpes formicivorus</i> | OW | 2 |
| American crow | <i>Corvus brachyrhynchos</i> | CHAP, OW, NNG / overhead | 14 |
| American goldfinch | <i>Carduelis tristis</i> | CSS | 5 |
| American kestrel | <i>Falco sparverius</i> | | 15 |
| Anna's hummingbird | <i>Calypte anna</i> | CSS, NNG | 35 |
| Ash-throated flycatcher | <i>Myiarchus cinerascens</i> | OW | 6 |
| Bewick's wren | <i>Thryomanes bewickii</i> | CSS, CHAP, NNG, EUC | 14 |
| Black phoebe | <i>Sayornis nigricans</i> | CSS, EUCS | 6 |
| Brown-headed cowbird | <i>Molothrus ater</i> | AG, DEV | 3 |
| Bullock's oriole | <i>Icterus bullockii</i> | CSS, EUCS | 12 |
| Bushtit | <i>Psaltiriparus minimus</i> | CSS, CHAP | 75+ |
| Coastal California gnatcatcher! | <i>Poliophtila californica californica</i> | CSS | 20 |
| California quail | <i>Callipepla californica</i> | CSS, CHAP, EUC | 70+ |
| California thrasher! | <i>Toxostoma redivivum</i> | CSS, OW | 35 |
| California towhee | <i>Pipilo crissalis</i> | CSS, CHAP, NNG | 150 |
| Cassin's kingbird | <i>Tyrannus vociferans</i> | CSS, CHAP, NNG | 18 |
| Cliff swallow | <i>Petrochelidon pyrrhonota</i> | Overhead | 15 |
| Common raven | <i>Corvus corax</i> | Overhead | 15 |
| Costa's hummingbird | <i>Calypte costae</i> | CSS | 5 |
| Dark-eyed junco | <i>Junco hyemalis</i> | OW | 2 |
| European starling | <i>Sturnus vulgaris</i> | NNG, DEV | 5 |
| Greater roadrunner | <i>Geococcyx californianus</i> | CSS, NNG | 5 |
| Hooded oriole | <i>Icterus cucullatus</i> | EUC | 12 |
| House finch | <i>Carpodacus mexicanus</i> | CSS, EUCS | 80 |
| House wren | <i>Troglodytes aedon</i> | CSS | 4 |
| Hutton's vireo | <i>Vireo huttoni</i> | CSS | 1 |
| Killdeer | <i>Charadrius vociferus</i> | NNG | 8 |
| Lark sparrow | <i>Chondestes grammacus</i> | CSS | 33 |
| Lawrence's goldfinch | <i>Carduelis lawrencei</i> | CSS | 2 |
| Lazuli bunting | <i>Passerina amoena</i> | CSS, EUC | 30 |
| Lesser goldfinch | <i>Carduelis psaltria</i> | CSS, EUC | 35 |
| Loggerhead shrike! | <i>Lanius ludovicianus</i> | CSS | 1 |
| Mallard | <i>Anas platyrhynchos</i> | Vernal pool | 3 |
| Mountain bluebird | <i>Sialia currucoides</i> | NNG | 7 |
| Mourning dove | <i>Zenaida macroura</i> | CSS, OW, EUC | 50 |
| Northern flicker | <i>Colaptes auratus</i> | CSS | 3 |
| Northern mockingbird | <i>Mimus polyglottos</i> | CSS, EUC | 20 |
| Phainopepla | <i>Phainopepla nitens</i> | EUC | 4 |
| Red-shouldered hawk! | <i>Buteo lineatus</i> | Overhead | 2 |

| Common Name | Scientific Name | Habitat Observed | # Observed |
|--|---------------------------------------|------------------|-----------------|
| Red-tailed hawk | <i>Buteo jamaicensis</i> | EUC / overhead | 11 |
| Red-winged blackbird | <i>Agelaius phoeniceus</i> | AG | 2 |
| Rock dove | <i>Columba livia</i> | DEV | 5 |
| Say's phoebe | <i>Sayornis saya</i> | CSS | 2 |
| Scrub jay | <i>Aphelocoma californica</i> | CSS, CHAP, EUC | 8 |
| Song sparrow | <i>Melospiza melodia</i> | CSS | 15 |
| Southern California rufous-crowned sparrow! | <i>Aimophila ruficeps canescens</i> | CSS | 1 |
| Spotted towhee | <i>Pipilo erythrophthalmus</i> | CSS, NNG, EUC | 65 |
| Turkey vulture! | <i>Cathartes aura meridionalis</i> | Overhead | 8 |
| Western kingbird | <i>Tyrannus verticalis</i> | CSS | 18 |
| Western meadowlark | <i>Sturnella neglecta</i> | CSS, NNG | 35+ |
| White-breasted nuthatch | <i>Sitta carolinensis</i> | OW | 10+ |
| White-crowned sparrow | <i>Zonotrichia leucophrys</i> | CSS, NNG | 40 |
| White-tailed kite | <i>Elanus leucurus majusculus</i> | OW | 2 |
| Wrentit | <i>Chamaea fasciata</i> | CSS, CHAP | 20 |
| Yellow-rumped warbler | <i>Dendroica coronata</i> | CSS, CHAP | 30 |
| MAMMALS | | | |
| California ground squirrel | <i>Spermophilus beecheyi nudipes</i> | CSS, NNG, AG, OW | Many |
| Coyote | <i>Canis latrans clepticus</i> | CSS, NNG | 2 and scat |
| Desert cottontail rabbit | <i>Sylvilagus audubonii</i> | CSS, CHAP | 10+ |
| Domestic dog | <i>Canis domestica</i> | CSS | scat |
| Dulzura kangaroo rat | <i>Dipodomys simulans</i> | CSS | 1 |
| Dusky-footed woodrat | <i>Neotoma fuscipes macrotis</i> | CSS, CHAP | Nests (Several) |
| Horse | <i>Equus sp.</i> | CSS | Tracks, scat |
| Woodrat | <i>Neotoma sp.</i> | CSS, CHAP | Nests (Several) |
| Southern mule deer | <i>Odocoileus hemionus fuliginata</i> | CSS, CHAP | Tracks |
| Habitats: AG=agricultural field; CHAP=chaparral; CSS=coastal sage scrub; DIS=disturbed; EUC=Eucalyptus woodland; NNG=non-native grassland; OW=oak woodland | | | |

! sensitive species

APPENDIX C

SENSITIVE PLANT SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE MONTECITO RANCH PROPERTY

APPENDIX C
SENSITIVE SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO
MONTECITO RANCH (USGS SAN PASQUAL QUAD)

| Species | Growth form | CNPS* | R-E-D* | State* | Federal* | Potential to Occur Onsite |
|--|---------------------------------|-------|--------|--------|----------|--|
| <i>ACANTHOMINTHA ILICIFOLIA</i> "San Diego thorn-mint" | Annual herb | 1B | 2-3-2 | CE | FT | Low; species documented in this quad but not observed during surveys; preferred soils not onsite. |
| <i>ACHNATHERUM DIEGOENSE</i> "San Diego County needle grass" | Perennial herb | 4 | 1-2-1 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>ANDROSACE ELONGATA</i> SSP. <i>ACUTA</i> "California androsace" | Annual herb | 4 | 1-2-2 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>ARTEMISIA PALMERI</i> "San Diego sagewort" | Shrub (deciduous) | 4 | 1-2-1 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>ASPLENIUM VESPERTINUM</i> "western spleenwort" | Perennial herb (rhizomatous) | 4 | 1-2-2 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>ASTRAGALUS OOCARPUS</i> "San Diego milk-vetch" | Perennial herb | 1B | 3-2-3 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>ATRIPLEX COULTERI</i> "Coulter's saltbush" | Perennial herb | 1B | 2-2-2 | None | None | Very low; site too far inland; would have been identifiable during surveys but was not observed onsite. |
| <i>BACCHARIS VANESSAE</i> "Encinitas baccharis" | Shrub (deciduous) | 1B | 2-3-3 | CE | FT | Low; species documented in this quad but not observed during surveys. |
| <i>BRODIAEA ORCUTTII</i> "Orcutt's brodiaea" | Perennial herb (bulbiferous) | 1B | 1-3-2 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>CALANDRINIA BREWERI</i> "Brewer's calandrinia" | Annual herb | 4 | 1-2-2 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>CALANDRINIA MARITIMA</i> "seaside calandrinia" | Annual herb | 4 | 1-2-1 | None | None | Low; site too far inland; would have been identifiable during surveys but was not observed onsite. |
| <i>CALOCHORTUS CATALINAE</i> "Catalina mariposa lily" | Perennial herb (bulbiferous) | 4 | 1-2-3 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>CALOCHORTUS DUNNII</i> "Dunn's mariposa lily" | Perennial herb (bulbiferous) | 1B | 2-2-2 | CR | SOC | Very low; onsite soils inappropriate; would have been identifiable during surveys but was not observed onsite. |
| <i>CAULANTHUS SIMULANS</i> "Payson's jewel-flower" | Annual herb | 4 | 1-2-3 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>CEANOTHUS CYANEUS</i> "Lakeside ceanothus" | Shrub (evergreen) | 1B | 3-2-2 | None | SOC | Moderate; was not observed onsite but could be obscured in areas of very dense chaparral. |
| <i>CENTROMADIA PARRYI</i> SSP. <i>AUSTRALIS</i> "southern tarplant" | Annual herb | 1B | 3-3-2 | None | SOC | Occurs onsite |
| <i>CENTROMADIA PUNGENS</i> SSP. <i>LAEVIS</i> "smooth tarplant" | Annual herb | 1B | 2-3-3 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>CHAMAEBATIA AUSTRALIS</i> "southern mountain misery" | Shrub (evergreen) | 4 | 1-2-1 | None | None | Very low; onsite soils inappropriate; would have been identifiable during surveys but was not observed onsite. |
| <i>CHORIZANTHE LEPTOTHECA</i> "Peninsular spineflower" | Annual herb | 4 | 1-2-2 | None | None | Present onsite: several hundred individuals observed in a specific area of coastal sage scrub. |
| <i>CHORIZANTHE POLYGONOIDES</i> VAR. <i>LONGISPINA</i> "long-spined spineflower" | Annual herb | 1B | 2-2-2 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>CLARKIA DELICATA</i> "delicate clarkia" | Annual herb | 1B | 2-2-2 | None | None | Present onsite: one colony observed in a drainage on the eastern end of the site. |

| Species | Growth form | CNPS* | R-E-D* | State* | Federal* | Potential to Occur Onsite |
|--|------------------------------|-------|--------|--------|----------|---|
| <i>COMAROSTAPHYLIS DIVERSIFOLIA</i> SSP. <i>DIVERSIFOLIA</i> "summer holly" | Shrub (evergreen) | 1B | 2-2-2 | None | SOC | Low; was not observed onsite but could be obscured in areas of very dense chaparral. |
| <i>CONVOLVULUS SIMULANS</i> "small-flowered morning-glory" | Annual herb | 4 | 1-2-2 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>DEINANDRA PANICULATA</i> "paniculate tarplant" | Annual herb | 4 | 1-2-2 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>DELPHINIUM PARISHII</i> SSP. <i>SUBGLOBOSUM</i> "Colorado Desert larkspur" | Perennial herb | 4 | 1-1-2 | None | None | Very low; prefers Sonoran desert scrub; would have been identifiable during surveys but was not observed onsite. |
| <i>DICHONDRA OCCIDENTALIS</i> "western dichondra" | Perennial herb (rhizomatous) | 4 | 1-2-1 | None | None | Moderate; was not observed onsite, but is a cryptic species that grows under leafy shrubs; could occur in dense chaparral. |
| <i>DUDLEYA VARIEGATA</i> "variegated dudleya" | Perennial herb | 1B | 2-2-2 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>ERICAMERIA PALMERI</i> SSP. <i>PALMERI</i> "Palmer's goldenbush" | Shrub (evergreen) | 2 | 3-2-1 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>ERODIUM MACROPHYLLUM</i> "round-leaved filaree" | Annual herb | 2 | 2-3-1 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>ERYNGIUM ARISTULATUM</i> VAR. <i>PARISHII</i> "San Diego button-celery" | Annual/perennial herb | 1B | 2-3-2 | CE | FE | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>FEROCACTUS VIRIDESCENS</i> "San Diego barrel cactus" | Shrub (stem succulent) | 2 | 1-3-1 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>GALIUM JOHNSTONII</i> "Johnston's bedstraw" | Perennial herb | 4 | 1-1-3 | None | None | Very low; prefers lower montane coniferous forest; would have been identifiable during surveys but was not observed onsite. |
| <i>GILIA CARUIFOLIA</i> "caraway-leaved gilia" | Annual herb | 4 | 1-1-1 | None | None | Very low; prefers lower montane coniferous forest and high desert chaparral; would have been identifiable during surveys but was not observed onsite. |
| <i>GITHOPSIS DIFFUSA</i> SSP. <i>FILICAULIS</i> "Mission Canyon bluecup" | Annual herb | 3 | ?-3-3 | None | SOC | Low; was not observed onsite; lack of preferred habitat of isolated sandy openings in chaparral. |
| <i>HARPAGONELLA PALMERI</i> "Palmer's grappplinghook" | Annual herb | 4 | 1-2-1 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>HESPEREVAX CAULESCENS</i> "hogwallow starfish" | Annual herb | 4 | 1-2-3 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>HOLOCARPHA VIRGATA</i> SSP. <i>ELONGATA</i> "graceful tarplant" | Annual herb | 4 | 1-2-3 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>HORDEUM INTERCEDENS</i> "vernal barley" | Annual herb | 3 | ?-2-2 | None | None | Low; not documented in project area; not observed during surveys. |
| <i>HORKELIA TRUNCATA</i> "Ramona horkelia" | Perennial herb | 1B | 3-1-2 | None | None | Moderate; preferred soil type and habitat are found onsite, and species is documented in adjacent quad (Ramona); but was not observed onsite. |
| <i>HULSEA VESTITA</i> SSP. <i>CALLICARPHA</i> "beautiful hulsea" | Perennial herb | 4 | 1-2-3 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>HYMENOTHRIX WRIGHTII</i> "Wright's hymenothrix" | Perennial herb | 4 | 1-1-1 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>IVA HAYESIANA</i> "San Diego marsh-elder" | Perennial herb | 2 | 2-2-1 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>JUGLANS CALIFORNICA</i> "Southern California black walnut" | Tree (deciduous) | 4 | 1-2-3 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |

| Species | Growth form | CNPS* | R-E-D* | State* | Federal* | Potential to Occur Onsite |
|--|---------------------------------|-------|--------|--------|----------|--|
| <i>JUNCUS ACUTUS</i> SSP. <i>LEOPOLDII</i> "southwestern spiny rush" | Perennial herb (rhizomatous) | 4 | 1-2-1 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>JUNCUS COOPERI</i> "Cooper's rush" | Perennial herb | 4 | 1-1-1 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>LATHYRUS SPLENDENS</i> "pride-of-California" | Perennial herb | 4 | 1-1-2 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>LEPECHINIA CARDIOPHYLLA</i> "heart-leaved pitcher sage" | Shrub | 1B | 3-2-2 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>LEPIDIUM VIRGINICUM</i> VAR. <i>ROBINSONII</i> "Robinson's pepper-grass" | Annual herb | 1B | 3-2-2 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>LILIUM HUMBOLDTII</i> SSP. <i>OCELLATUM</i> "ocellated Humboldt lily" | Perennial herb (bulbiferous) | 4 | 1-2-3 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>MACHAERANTHERA JUNCEA</i> "rush-like bristlewheat" | Perennial herb | 4 | 1-1-1 | None | None | Present onsite: two colonies observed in a specific area of coastal sage scrub. |
| <i>MICROSERIS DOUGLASII</i> VAR. <i>PLATYCARPHA</i> "small-flowered microseris" | Annual herb | 4 | 1-2-2 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>MIMULUS ARIDUS</i> "low bush monkeyflower" | Shrub (evergreen) | 4 | 1-1-2 | None | None | Very low; prefers desert chaparral; would have been identifiable during surveys but was not observed onsite. |
| <i>MIMULUS CLEVELANDII</i> "Cleveland's bush monkeyflower" | Perennial herb | 4 | 1-2-2 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>MIMULUS DIFFUSUS</i> "Palomar monkeyflower" | Annual herb | 4 | 1-1-1 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>MONARDELLA HYPOLEUCA</i> SSP. <i>LANATA</i> "felt-leaved monardella" | Perennial herb (rhizomatous) | 1B | 2-2-2 | None | None | Low; species documented in this quad but not observed during surveys. |
| <i>MUCRONEA CALIFORNICA</i> "California spineflower" | Annual herb | 4 | 1-2-3 | None | None | Very low; too far inland; would have been identifiable during surveys but was not observed onsite. |
| <i>MUILLA CLEVELANDII</i> "San Diego goldenstar" | Perennial herb (bulbiferous) | 1B | 2-3-2 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>MYOSURUS MINIMUS</i> SSP. <i>APUS</i> "little mouse-tail" | Annual herb | 3 | 2-3-2 | None | SOC | Low; species documented in this quad but not observed during surveys. |
| <i>NAVARRETTIA FOSSALIS</i> "spreading navarretia" | Annual herb | 1B | 2-3-2 | None | FT | Low; species documented in this quad but not observed during surveys. |
| <i>OPHIOGLOSSUM CALIFORNICUM</i> "California adder's-tongue" | Perennial herb (rhizomatous) | 4 | 1-2-2 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>PENSTEMON CLEVELANDII</i> VAR. <i>CONNATUS</i> "San Jacinto beardtongue" | Perennial herb | 4 | 1-1-1 | None | None | Very low; prefers desert-facing slopes of Peninsular Range; would have been identifiable during surveys but was not observed onsite. |
| <i>PENTACHAETA AUREA</i> "golden-rayed pentachaeta" | Annual herb | 4 | 1-2-2 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>PERIDERIDIA GAIRDNERI</i> SSP. <i>GAIRDNERI</i> "Gairdner's yampah" | Perennial herb | 4 | 1-2-3 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>PIPERIA COOPERI</i> "chaparral rein orchid" | Perennial herb | 4 | 1-2-2 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>PIPERIA LEPTOPETALA</i> "narrow-petaled rein orchid" | Perennial herb | 4 | 1-1-3 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>POLYGALA CORNUTA</i> VAR. <i>FISHIAE</i> "Fish's milkwort" | Shrub (deciduous) | 4 | 1-1-2 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |

February 2008

REC Consultants, Inc.

APPENDIX C

Montecito Ranch
Biological Technical Report

| Species | Growth form | CNPS* | R-E-D* | State* | Federal* | Potential to Occur Onsite |
|--|---------------------------------|-------|--------|--------|----------|--|
| <i>QUERCUS ENGELMANNII</i> "Engelmann oak" | Tree (deciduous) | 4 | 1-2-2 | None | None | Present onsite: approximately 300 individuals observed in eastern half of site. |
| <i>RIBES CANTHARIFORME</i> "Moreno currant" | Shrub (deciduous) | 1B | 3-1-3 | None | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>ROMNEYA COULTERI</i> "Coulter's matilija poppy" | Perennial herb (rhizomatous) | 4 | 1-2-3 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>RUPERTIA RIGIDA</i> "Parish's rupertia" | Perennial herb | 4 | 1-1-2 | None | None | Very low; prefers lower montane coniferous forest and mountain chaparral; would have been identifiable during surveys but was not observed onsite. |
| <i>SATUREJA CHANDLERI</i> "San Miguel savory" | Perennial herb | 1B | 2-2-2 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>SCUTELLARIA BOLANDERI</i> SSP. <i>AUSTROMONTANA</i> "southern skullcap" | Perennial herb (rhizomatous) | 1B | 2-2-3 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>SELAGINELLA ASPRELLA</i> "bluish spike-moss" | Perennial herb (rhizomatous) | 4 | 1-1-2 | None | None | Very low; prefers coniferous forest and pinyon juniper woodland; would have been identifiable during surveys but was not observed onsite. |
| <i>SENECIO GANDERI</i> "Gander's ragwort" | Perennial herb | 1B | 3-2-3 | CR | SOC | Low; would have been identifiable during surveys but was not observed onsite. |
| <i>STREPTANTHUS BERNARDINUS</i> "Laguna Mountains jewel-flower" | Perennial herb | 4 | 1-1-3 | None | None | Very low; prefers lower montane coniferous forest; would have been identifiable during surveys but was not observed onsite. |
| <i>TETRACOCCLUS DIOICUS</i> "Parry's tetracoccus" | Shrub (deciduous) | 1B | 3-2-2 | None | SOC | Low; documented onsite in Dudek report, but not observed during intensive 2001 surveys. |
| <i>VIGUIERA LACINIATA</i> "San Diego County viguiera" | Shrub | 4 | 1-2-1 | None | None | Low; would have been identifiable during surveys but was not observed onsite. |

* See Attached Sensitivity Codes for explanation of abbreviations

APPENDIX D

SENSITIVE WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE MONTECITO RANCH PROPERTY

| APPENDIX D SENSITIVE ANIMAL SPECIES WITH THE POTENTIAL TO OCCUR WITHIN OR ADJACENT TO THE MONTECITO RANCH PROPERTY (1411-1768 ft) | | | | |
|--|--|----------------------|---|---|
| Common Name | Scientific Name | Federal/State Status | Habitat | Potential to Occur Onsite |
| INVERTEBRATES | | | | |
| Harbison dun skipper | <i>Euphyes vestris harbisoni</i> | --/-- County | Mixed chaparral, riparian oak woodland, and freshwater marsh; host plant is San Diego sedge (<i>Carex spissa</i>). | High; not observed in 2001 surveys, but host plant occurs onsite, and documented onsite by Dudek (1997). |
| Hermes copper | <i>Lycaena hermes</i> | --/-- County | Coastal sage scrub, mixed chaparral and chamise chaparral; host plant is spiny redberry (<i>Rhamnus crocea</i>) | Low; host plant onsite but Hermes copper not observed during 2001 surveys. |
| Monarch butterfly | <i>Danaus plexippus</i> | --/-- | Grassland, oak woodlands and montane meadows (winter); 500 to over 3000ft. Milkweed (<i>Asclepias</i> sp.) among host plants. | Moderate potential to occur onsite ; <i>Asclepias californica</i> found onsite. |
| Quino checkerspot | <i>Euphydryas editha quino</i> | FE/-- | Open grassy areas, interior foothills, host-plant is <i>Plantago erecta</i> , <i>Plantago ovata</i> , <i>Castilleja exserta</i> ; 0-1000ft. | Low; focused survey produced negative results. |
| Riverside fairy shrimp | <i>Streptocephalus woottoni</i> | FE/-- MSCP | Vernal pools; 0-500ft. | Low; no appropriate habitat onsite. |
| San Diego fairy shrimp | <i>Branchinecta sandiegonensis</i> | FE/-- MSCP | Vernal pools; 0-3000ft. | Low; no appropriate habitat onsite. |
| AMPHIBIANS | | | | |
| Arroyo toad | <i>Bufo californicus</i> (= <i>B. microscaphus</i>) | FE/CSC MSCP | Semi-arid regions near washes or intermittent streams. Habitats used include valley-foothill and desert riparian as well as a variety of more arid habitats including desert wash, palm oasis, and Joshua tree, mixed chaparral and sagebrush; 500-3000ft. Nocturnal. | Low; lack of habitat. Moderate at offsite sewer connection at Santa Maria creek (documented to occur in the creek). |
| California red-legged frog | <i>Rana aurora draytonii</i> | FT/CSC MSCP | Quiet pools of streams, marshes, and occasionally ponds; 500-3000ft. | Low; no appropriate habitat onsite. |
| Large-blotched salamander | <i>Ensatina eschscholtzii klauberi</i> | --/-- | Riparian, oak woodlands and mixed conifers; 1000 to over 3000ft. | Moderate; appropriate habitat onsite. |
| Western spadefoot | <i>Scaphiopus hammondii</i> | FSC/CSC | Grassland, scrub, and chaparral locally but could occur in oak woodlands. Nocturnal. Activity limited to wet season, summer storms or during evenings with elevated substrate moisture levels. 0-3000 ft. | Low; documented onsite by Dudek (1997), but onsite habitats are only marginally suitable. |

| Common Name | Scientific Name | Federal/State Status | Habitat | Potential to Occur Onsite |
|------------------------------------|---|----------------------|---|--|
| REPTILES | | | | |
| Belding's orange-throated whiptail | <i>Cnemidophorus hyperythrus beldingi</i> | --/CSC MSCP | Coastal sage scrub, mixed chaparral, grassland, riparian, and chamise chaparral habitats. Open hillsides with brush and rock, well drained soils; 1-1000ft | Moderate; not observed, but appropriate habitat onsite. |
| Coast patch-nosed snake | <i>Salvadora hexalepis virgultea</i> | --/CSC | Grass, chaparral, woodland, desert and coastal sage scrub. Found near rock outcrops with adjacent seasonal drainages; 0-3000ft. | Moderate; not observed, but appropriate habitat onsite. |
| Rosy boa | <i>Charina trivirgata</i> | FSC/-- | Coastal sage scrub, mixed chaparral, oak woodlands and chamise chaparral. Often found in association with rock outcrops; 0-3000ft. | Moderate; not observed, but appropriate habitat onsite. |
| Coastal western whiptail | <i>Cnemidophorus tigris multiscutatus</i> | --/-- County | Mixed chaparral, riparian, oak woodlands and chamise chaparral. Prefers rocky firm soils but avoids dense grasslands and wet areas; 0-3000ft. Feeds upon insects, scorpions and spiders. | Occurs onsite; one observed in coastal sage scrub. |
| Coronado skink | <i>Eumeces skiltonianus interparietalis</i> | --/CSC | Coastal sage scrub, grassland, riparian, near vernal pools, oak woodlands, chamise chaparral, mixed conifer, closed cone forests, and freshwater marshes. Found during the winter after rainfalls or during spring; 0-3000ft. | Moderate; not observed, but appropriate habitat onsite. |
| Red-diamond rattlesnake | <i>Crotalus exsul</i> (= <i>C. ruber</i>) | --/CSC | Coastal sage scrub, mixed chaparral, open grassy areas and agricultural areas, chamise chaparral, pinon juniper and desert scrub; 0-3000ft. | High; documented onsite by Dudek (1997). |
| San Diego banded gecko | <i>Coleonyx variegatus abbotti</i> | --/-- County | Coastal sage scrub, grassland, and chamise chaparral; 0-3000ft. | Moderate; not observed, but appropriate habitat onsite. |
| San Diego horned lizard | <i>Phrynosoma coronatum blainvillei</i> | --/CSC MSCP | Coastal sage scrub with harvester ants (<i>Pogonomyrmex</i> spp.). | Occurs onsite: two individuals observed in coastal sage scrub. |
| San Diego ringneck snake | <i>Diadophis punctatus similis</i> | --/FSC | Coastal sage scrub, mixed chaparral, riparian, oak woodlands, chamise chaparral, mixed conifer, closed cone forest. Can be found on surface during winter after rainfalls or during spring; 0 to over 3000ft. | Moderate; not observed, but appropriate habitat onsite. |
| Silvery legless lizard | <i>Anniella pulchra pulchra</i> | FSC/CSC | Coastal sage scrub, grassland, riparian and coastal desert dunes. Found in sandy loam and areas of accumulated leaf litter beneath shrubs and trees; 0-3000ft. | Moderate; not observed, but appropriate habitat onsite. |
| Two-striped garter snake | <i>Thamnophis hammondi</i> | --/CSC | In or near permanent fresh water, often along streams with rocky beds bordered by willows or other streamside growth. Sometimes near vernal pools; 0-1000ft. | Occurs onsite: one individual observed in ditch in coastal sage scrub. |
| BIRDS | | | | |
| Bell's sage sparrow (nesting) | <i>Amphispiza belli belli</i> | FSC/CSC | Coastal sage scrub, mixed and chamise chaparral. Nests well hidden in sagebrush or other scrub; 0-3000ft. | High; no nesting observed, but ten individuals observed in coastal sage scrub. |
| Black swift (nesting) | <i>Cypseloides niger</i> | FSC/CSC | Mixed chaparral (non-breeding). Seen most frequently in open sky. Nests of moss, grass and algae well hidden under a waterfall, on a protected sea cliff ledges, or on a canyon wall; 500-3000ft. | Low; onsite habitat not appropriate for nesting. |

| Common Name | Scientific Name | Federal/State Status | Habitat | Potential to Occur Onsite |
|--|---|----------------------|---|--|
| California gull (nesting colony) | <i>Larus californicus</i> | --/CSC | Lakes and bays (non-breeding colonies); in breeding season on interior lakes and marshes and in winter mostly on the seacoast; 0 to over 3000ft. | Low; onsite habitat not appropriate for nesting. |
| California horned lark | <i>Eremophila alpestris actia</i> | --/CSC | Open patches of bare land alternating with low vegetation in grasslands, montaine meadows, and sagebrush plains; 0 to over 3000ft. | High; documented onsite by Dudek (1997) and observed adjacent to offsite road alignment survey area. |
| California thrasher | <i>Toxostoma redivivum</i> | FSC/-- | Breeds in chaparral, moist woodlands with dense cover, brush along streams, suburbs with abundant plantings. | Occurs onsite; 35 observed in coastal sage scrub and oak woodland. |
| Canada goose | <i>Branta canadensis</i> | --/-- MSCP | Grasslands (winter); 0-3000ft. | Low; onsite habitat not appropriate for nesting. |
| Coastal cactus wren | <i>Campylorhynchus brunneicapillus couesi</i> | --/CSC MSCP | Coastal sage scrub; 0-500ft. | Low; usually occurs at lower elevations. |
| Coastal California gnatcatcher | <i>Poliopitila californica californica</i> | FT/CSC MSCP | Coastal sagebrush scrub especially where California sage (<i>Artemisia californica</i>) is the dominant plant; 0-3000 ft. | Occurs onsite: twenty individuals observed in coastal sage scrub. |
| Cooper's hawk (nesting) | <i>Accipiter cooperii</i> | --/CSC MSCP | Riparian and oak woodlands, eucalyptus groves and other forested areas; 500-3000ft. | High; appropriate nesting habitat onsite. |
| Ferruginous hawk (wintering) | <i>Buteo regalis</i> | FSC/CSC MSCP | Grasslands and desert scrub (winter). Prefers to nest in trees, but will nest in a bush or on the ground on a ledge, riverbank or hillside; 0-3000ft. | Moderate; wintering habitat occurs onsite. |
| Golden eagle (nesting and wintering) | <i>Aquila chrysaetos</i> | --/CSC MSCP | Mountains, foothills, and adjacent grassland, open areas and canyons; 0-3000ft. (nesting/wintering) | Moderate; appropriate open areas for foraging onsite. |
| Grasshopper sparrow (nesting) | <i>Ammodramus savannarum</i> | FSC/-- | Dry, dense grasslands, especially those with a variety of grasses and tall forbs and scattered shrubs for singing perches; 0 to over 3000ft. | Moderate; suitable habitat occurs onsite. |
| Least Bell's vireo (nesting) | <i>Vireo bellii pusillus</i> | FE/CE MSCP | Rivers and larger creeks. Nests in willows, mule fat, and riparian species; 0-1000ft. | Low; no appropriate habitat onsite. |
| Loggerhead shrike | <i>Lanius ludovicianus</i> | FSC/CSC | Roadside vegetation, thickets, savanna, coastal sage scrub, grasslands, riparian, oak woodlands and desert scrub and wash or any open country with high perches as lookouts; 0-3000ft. | Occurs onsite: one individual observed in coastal sage scrub. |
| Northern harrier (nesting) | <i>Circus cyaneus</i> | --/CSC MSCP | Grasslands and salt, alkali and freshwater marshes; 0-1000ft. Nests on ground in shrubby vegetation, usually emergent wetlands or along rivers or lakes. May also nest in grasslands, grain fields, or on sagebrush flats several miles from water. | High; not observed in 2001, but documented onsite by Dudek (1997) and appropriate nesting habitat occurs onsite. |
| Red-shouldered hawk | <i>Buteo lineatus</i> | --/-- County | Wet meadows and bogs, moist woodlands; especially river-bottom woodland across treeless plains; 0 to over 3000ft. | Occurs onsite: two observed flying over site. |
| Sharp-shinned hawk (nesting) | <i>Accipiter striatus</i> | --/CSC | Open woodlands, residential, larger trees for nesting; 0 to over 3000ft. | Moderate; appropriate nesting habitat occurs onsite. |
| Southern California rufous-crowned sparrow | <i>Aimophila ruficeps canescens</i> | --/CSC MSCP | Sparse, mixed chaparral and coastal scrub habitats (especially coastal sage). Frequents relatively steep, often rocky hillsides with grass and forb patches; 0-3000ft. | Occurs onsite: one individual observed in coastal sage scrub. |

| Common Name | Scientific Name | Federal/State Status | Habitat | Potential to Occur Onsite |
|---------------------------------------|---|------------------------------|--|---|
| Southwestern willow flycatcher | <i>Empidonax traillii extimus</i> | FE/-- MSCP | Dense willows along streams and rivers. Nests over standing or running waters; 0-1000ft. | Low; no appropriate habitat onsite, usually occurs at lower elevations. |
| Tricolored blackbird (nesting colony) | <i>Agelaius tricolor</i> | FSC/CSC MSCP | Fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs (Breeds). Feeds in grassland and cropland habitats; 0-500ft and 1000-3000ft. | Low; no appropriate nesting habitat onsite. |
| Turkey vulture | <i>Cathartes aura</i> | --/-- DFG Protected | Dry open country or along roadsides; coastal sage scrub, mixed and chamise chaparral, grassland, riparian, mixed conifer and closed cone forest; 0 to over 3000ft. | Occurs onsite: eight observed on rock outcrops and over site, one over offsite road alignment. |
| Western bluebird | <i>Sialia mexicana</i> | --/-- MSCP | Open woodlands; riparian and oak woodlands, where old trees provide nest sites; 1000 to over 3000ft. | Moderate; could occur onsite as a winter visitor. |
| White-tailed kite (nesting) | <i>Elanus leucurus</i> | FSC/-- | Grasslands and riparian; 0-3000ft. | High; appropriate nesting habitat occurs onsite, and two individuals observed in oak woodland. |
| Yellow-breasted chat (nesting) | <i>Icteria virens</i> | --/CSC | Dense thickets and brushy areas in riparian habitats; 0-3000ft | Low; no appropriate habitat onsite. |
| MAMMALS | | | | |
| American badger | <i>Taxidea taxus</i> | --/-- MSCP | Most abundant in drier open stages of most shrub, forest, and herbaceous habitats; 0 to over 3000ft. | Low; no evidence of burrows onsite. |
| California leaf-nosed bat | <i>Macrotus californicus</i> | --/CSC | Coastal sage scrub, mixed chaparral, riparian, desert scrub and wash. Roosts in buildings and mines; 0-1000ft. | Low; habitat occurs onsite but usually lives at lower elevations. |
| Dulzura (California) pocket mouse | <i>Chaetodipus californicus femoralis</i> | --/CSC | Coastal sage scrub, mixed chaparral, oak woodland, chamise chaparral, and mixed conifer habitats; 0 to over 3000ft. | Moderate; not observed, but appropriate habitat onsite. |
| Long-eared myotis | <i>Myotis evotis</i> | FSC/-- | Mixed chaparral, oak woodlands, riparian, and mixed conifer; 1000 to over 3000ft. | Moderate; not observed, but appropriate habitat onsite. |
| Long-legged myotis | <i>Myotis volans</i> | FSC/-- | Mixed chaparral, oak woodlands, chamise chaparral, coastal or desert dunes and mixed conifers; 1000 to over 3000ft. | Moderate; not observed, but appropriate habitat onsite. |
| Mountain lion | <i>Puma concolor</i> | --/-- MSCP | Forested and bushy regions, avoids open areas. | Moderate; not observed, but appropriate habitat onsite. |
| Northwestern San Diego pocket mouse | <i>Chaetodipus fallax fallax</i> | --/CSC | Coastal sage scrub and mixed and chamise chaparral. Nocturnal. Seeks cover in rocky/gravelly areas with a yucca overstory; 500-3000ft | Moderate; not observed, but appropriate habitat onsite. |
| Pacific pocket mouse | <i>Perognathus longimembris pacificus</i> | FE/CSC | Coastal sage scrub and grasslands; 0-500ft. | Low; usually occurs at lower elevations. |
| Ringtail | <i>Bassariscus astutus octavus</i> | --/-- DFG Fully Protected | Mixed and chamise chaparral. Nests in rock recesses, hollow trees, logs, snags, abandoned burrow, or woodrat nests; Nocturnal; 500 to over 3000ft | Moderate; not observed, but appropriate habitat onsite. |
| San Diego black-tailed jackrabbit | <i>Lepus californicus bennettii</i> | --/CSC | Coastal sage scrub, mixed chaparral, oak woodlands, chamise chaparral, mixed conifer, and closed cone forest and open areas. Common in irrigated pastures and row crops; 0 to over 3000ft. | High; appropriate habitat occurs onsite, observed on adjacent property. |

| Common Name | Scientific Name | Federal/State Status | Habitat | Potential to Occur Onsite |
|----------------------------------|---|----------------------|--|--|
| San Diego desert woodrat | <i>Neotoma lepida intermedia</i> | --/CSC | Coastal sage scrub, oak woodlands and chamise chaparral and rocky outcrops. Nocturnal. Typically associated with cacti; 500-3000ft. | High; woodrat nests in rock crevices observed onsite. |
| Southern grasshopper mouse | <i>Onychomys torridus ramona</i> | FSC/CSC | Coastal sage scrub, mixed chaparral, grassland, and chamise chaparral. Nocturnal. Low to moderate shrub cover is preferred; 500-3000ft. Food of preference is grasshoppers but will consume seeds, other insects and lizards. | Moderate; not observed, but appropriate habitat onsite. |
| Stephens' kangaroo rat | <i>Dipodomys stephensi</i> | FE/CT | Coastal sage scrub and grasslands; 500-3000ft. | Low; focused survey (O'Farrell 2001) for this species had negative findings. |
| Townsend's western big-eared bat | <i>Corynorhinus townsendii townsendii</i> | FSC/CSC | All but subalpine and alpine habitats. Requires caves, mines, tunnels, buildings, or other human-made structures for night, day, hibernation or maternity roosts; 500-3000ft. | Moderate; not observed, but appropriate habitat onsite. |
| Western mastiff bat | <i>Eumops perotis californicus</i> | FSC/CSC | Open semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban. Crevices in cliff faces, high buildings, trees, and tunnels are required for roosting; 500-3000ft. | Moderate; not observed but onsite habitat is marginally suitable. |

Listing Status Designations

Federal Species Designations (USFWS 2002)

FE Federal Endangered species
FT Federal Threatened species
FPD Federally proposed for delisting
FPT Federally proposed for listing as Threatened
FC Federal candidate species
FSC Federal Species of Concern (former Candidate Species)

State Species Designations (CDFG 2002)

CE State listed as Endangered
CT State listed as Threatened
CSC CDFG California Special Concern species

MSCP Multiple Species Conservation Plan Covered Species
County County of San Diego interest

APPENDIX E

**FOCUSED CALIFORNIA GNATCATCHER
SURVEY RESULTS**

Please Note:

The following survey or study was conducted on Montecito Ranch prior to the agricultural operations performed onsite in 2001. Any discrepancies between this survey / study and the findings and representations of the Biological Technical Report are due to these operations.

September 18, 2001

United States Fish and Wildlife Service
Ms. Christine Moen
2730 Loker Avenue West
Carlsbad, CA 92008

**Report of California Gnatcatcher Surveys on the Montecito Ranch Project
(USFWS TE009390-2 and 812206-1)**

Introduction

The proposed project is the development of approximately 350 rural residential homes on approximately 935 acres in San Diego County.

Geographical Limits of the Study Area

The proposed project is approximately 935 acres located in northern Ramona in the County of San Diego (Figure 1). The site is bounded by undeveloped land to the west, Montecito Road to the south, State Route 78 (SR-78) to the north, and Pine Street and rural residential to the east. Current land uses onsite include agriculture and undeveloped land.

The topography of the project site consists of rocky foothills surrounding a gently sloping valley. Elevations onsite range from about 1,411 feet above mean sea level in the far southwestern corner of the property to about 1768 feet above mean sea level at the peak of a rocky hill near the southern-middle portion of the site. Three blue-line streams occur onsite with several creeks and/or intermittent drainages. The proposed project is located on the San Pasqual U.S.G.S. 7.5' Quad, in Township 13 South, Range 1 East (Figure 2).

Habitats

Eight habitats were documented onsite: coastal sage scrub (inland form), chamise chaparral, oak woodland, non-native grassland, eucalyptus woodland, agriculture/row crops, urban/developed, and vernal pools. A draft habitat map has been prepared and all acreages are approximate (Figure 3).

Coastal Sage Scrub (343.76 acres)

The coastal sage scrub habitat is the predominant habitat onsite and varies in composition throughout the site. The dominant plants are typically the shrubs *Artemisia californica* (California sagebrush), *Eriogonum fasciculatum* (California buckwheat), *Malosma laurina* (laurel sumac), and *Salvia apiana* (white sage). Some slopes also include to a lesser extent: *Keckiella antirrhinoides* (bush penstemon), *Gutierrezia sarothrae* (San

Non-Native Grassland (138.94 acres)

Where native vegetation has been degraded by grazing, agriculture, fire, or other disturbance, the land often reverts to annual grassland. In these situations non-native grasses and weeds dominate the habitat, and there are few early successional elements of the former community. Onsite these areas are dominated by two species of filaree (*Erodium botrys* and *E. cicutarium*) nearly to the exclusion of all other species. Other species present in this non-native habitat include introduced grasses, such as common barley (*Hordeum vulgare*) and slender oat (*Avena barbata*), and a variety of weedy annuals such as mustards (*Brassica* and *Sisymbrium* species), common fiddleneck (*Amsinckia intermedia*), and redmaids (*Calandrinia ciliata*). Approximately 138.94 acres of non-native grassland occurs onsite.

Eucalyptus Woodland (37.71 acres)

Two eucalyptus (*Eucalyptus* sp.) groves are present on the subject property. The larger grove in the western portion of the site is bordered on the south and west by agriculture and on the north and east by coastal sage scrub. This grove has an understory consisting of moderately high quality coastal sage scrub dominated by California sagebrush and black sage. There is a smaller second grove in the southeast corner of the property. This grove consists of a short row of eucalyptus trees and a short row of olive trees (*Olea europaea*). Eucalyptus woodland occupies approximately 37.71 acres onsite.

Agriculture (82.92 acres)

Agriculture uses onsite consist of row crops such as barley. The agricultural areas onsite are located on the western half of the property and are farmed each year. Approximately 82.92 acres of this habitat occur onsite.

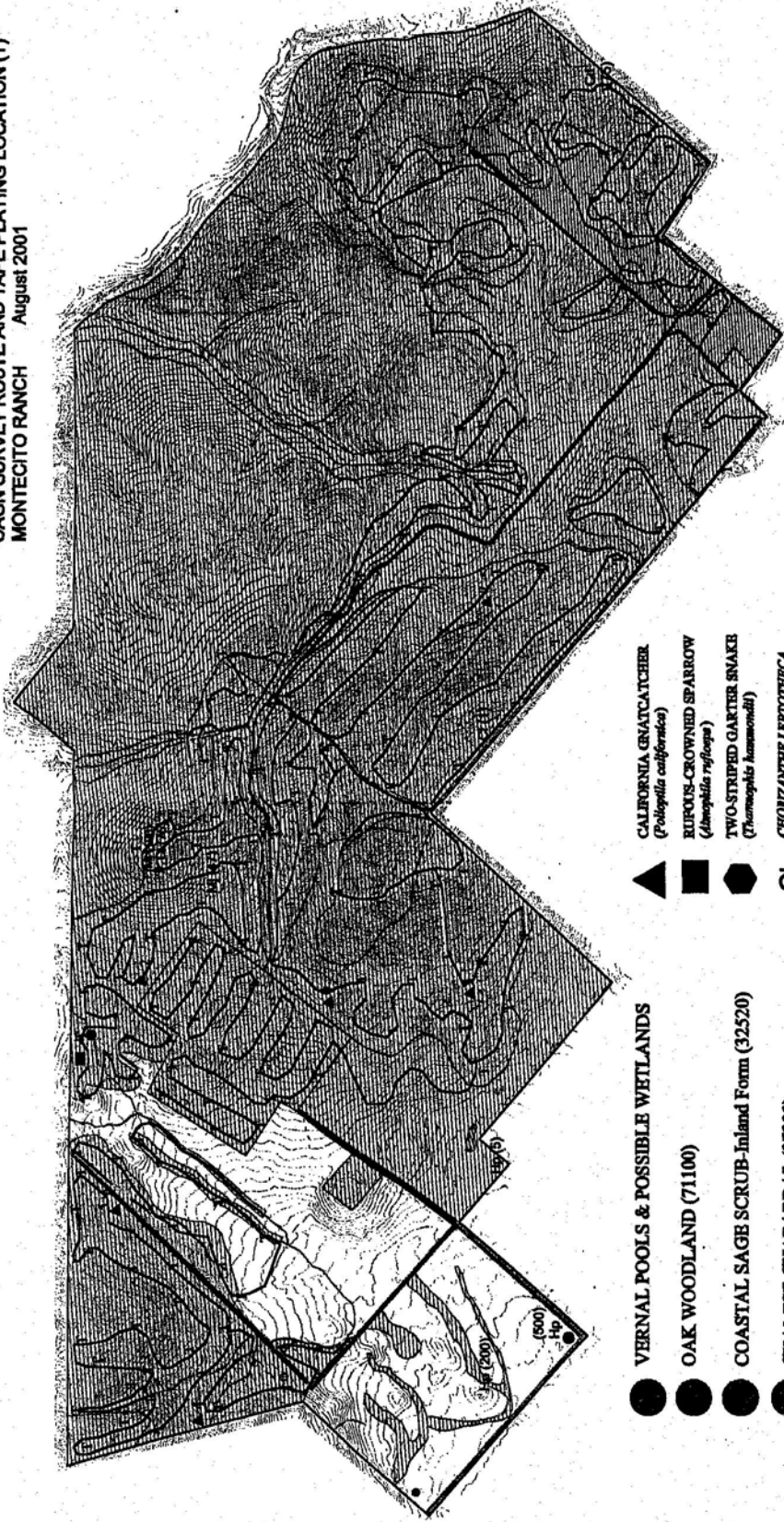
Urban/Developed (23.02 acres)

This habitat onsite is composed primarily of dirt roads and the site of the Montecito Ranch House and associated ornamental landscape. This habitat composes approximately 23.02 acres onsite.

Vernal Pool

Vernal pools are generally small, poorly drained depressions that occur in areas of level or gently undulating topography (Stone 1990). These ephemeral ponds collect the run-off of winter and spring rains and support a unique biota adapted specifically to these temporary conditions. Once fairly common and widespread, this unique and fragile community has been reduced by greater than 95 percent of its former acreage in San Diego County (Hix 1990).

Two vernal pools were discovered onsite in the extreme southwestern portion of the property in the agricultural habitat. These areas are represented by small depressions where the vegetation is conspicuously different from that of the surrounding habitat.



- | | |
|--|---|
| ● VERNAL POOLS & POSSIBLE WETLANDS | ▲ CALIFORNIA Gnatcatcher (<i>Protophila californica</i>) |
| ● OAK WOODLAND (71100) | ■ RUFUS-CROWNED SPARROW (<i>Ampelis ruficeps</i>) |
| ● COASTAL SAGE SCRUB-Inland Form (32520) | ◆ TWO-STRIPED GARTER SNAKE (<i>Thamnophis hammondi</i>) |
| ● CHAMISE CHAPARRAL (37200) | CI CHIONANTHUS LEPTOTHECA (Pentstemon sp. flower) |
| ● NON-NATIVE GRASSLAND (42200) | Cd CLARKEA DELICATA (Delicate Clarkia) |
| ○ AGRICULTURE (18320) | Hp HEALDIA PARRYI sp. AUSTRALIS (Southern Tarplant) |
| ● EUCALYPTUS WOODLAND (11100) | Mj MACHAERANTHERA JUNCCEA (Rush-like Bridalweed) |
| ● URBAN/DEVELOPED (12000) | |

RBC Consultants, Inc.
9517 Greenwood Summit Drive
La Mesa, CA 91941
619-466-0107

Approx Scale 1" = 850'
N

Figure 4

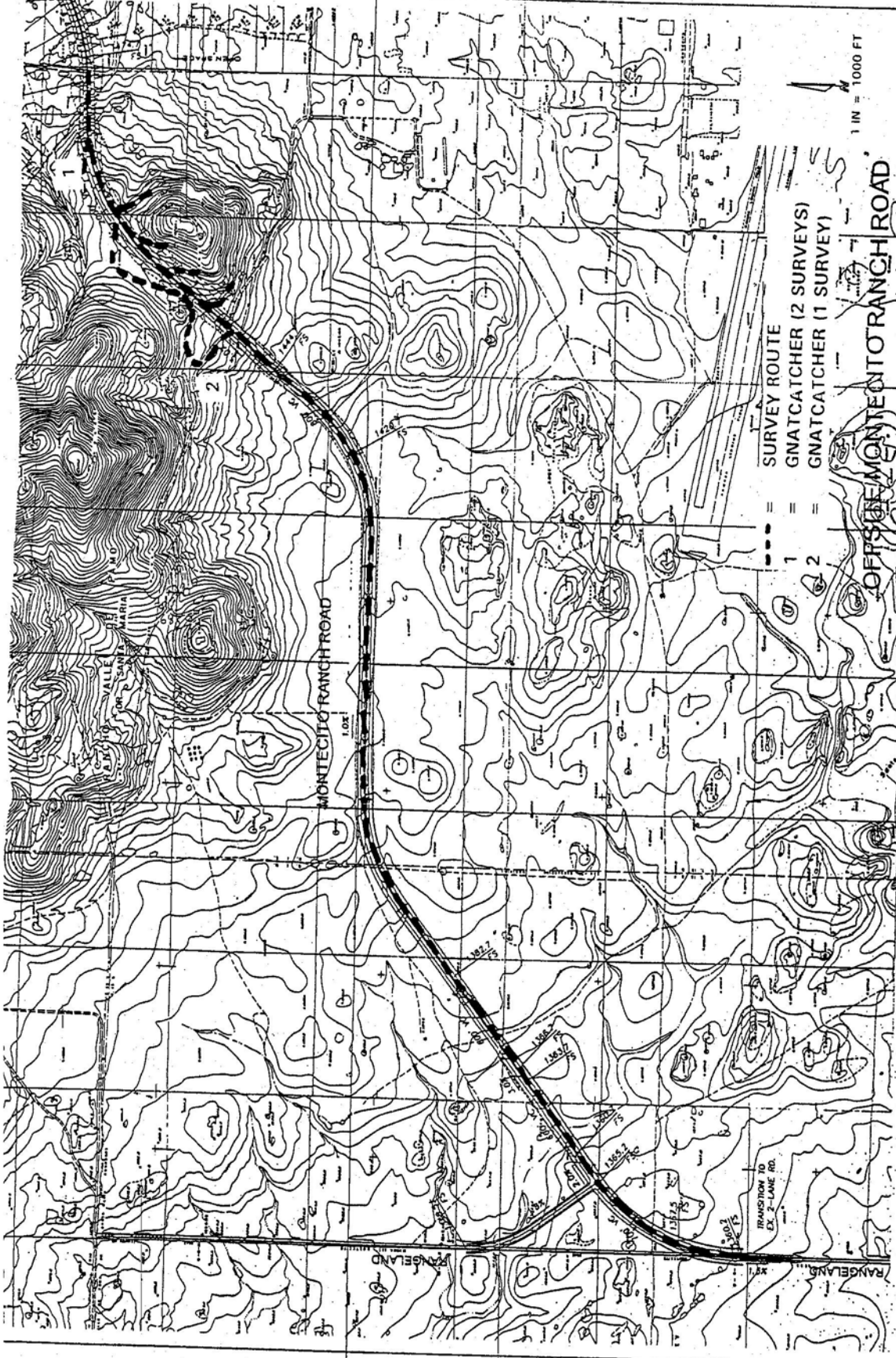


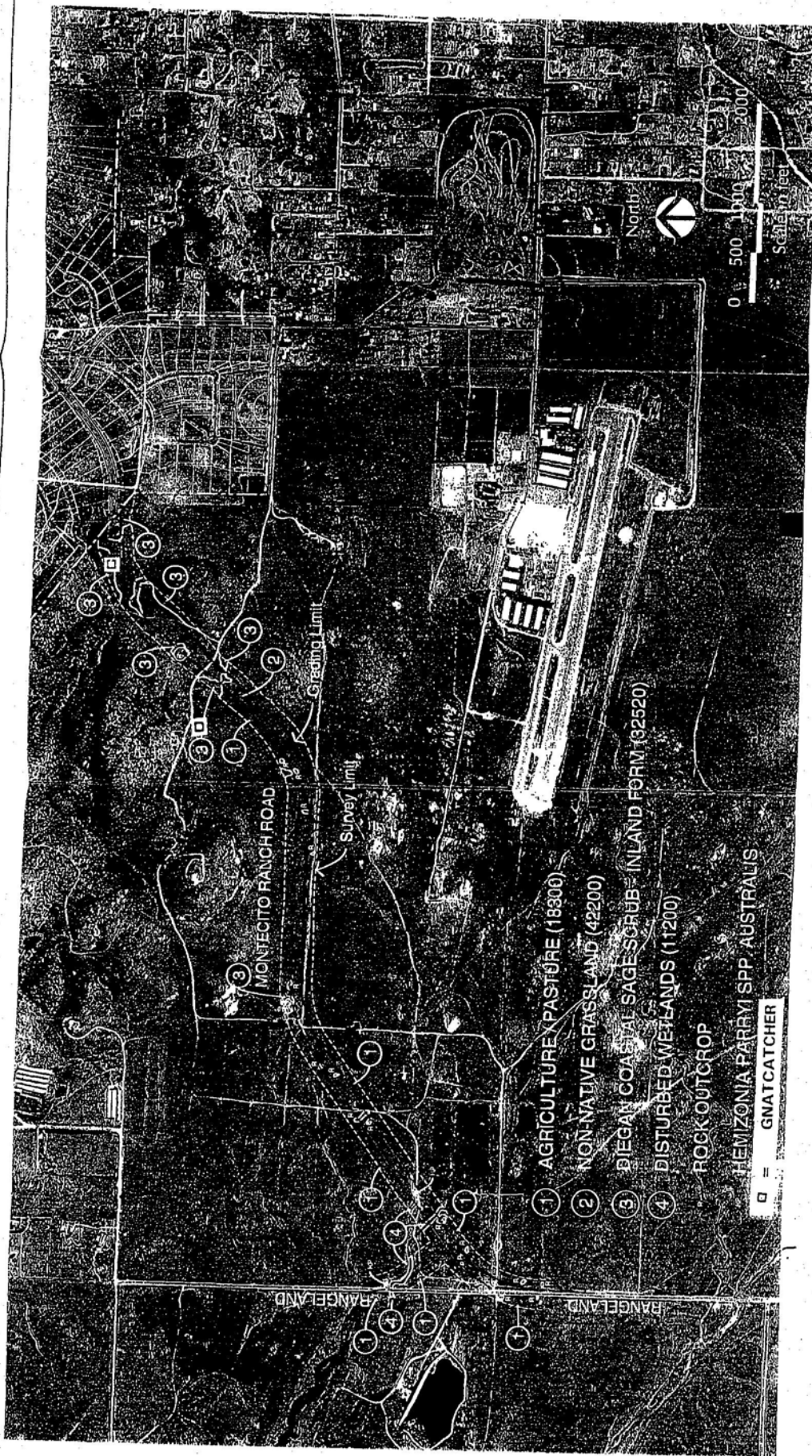
FIGURE 3 SURVEY ROUTES

COUNTY OF SAN DIEGO, CALIF.
MONTECITO RANCH

SURVEY ROUTE
= GNATCATCHER (2 SURVEYS)
= GNATCATCHER (1 SURVEY)

MONTECITO RANCH ROAD
OFFSHORE MONTECITO RANCH ROAD

TRANSITION TO
EX. 2-LANE RD.



OFFSITE ROAD ALIGNMENT BIOLOGICAL RESOURCES MAP
MONTECITO RANCH

Figure
4

REC
 Consultants, Inc.

APPENDIX F

RESULTS OF
FAIRY SHRIMP SURVEY

Please Note:

The following survey or study was conducted on Montecito Ranch prior to the agricultural operations performed onsite in 2001. Any discrepancies between this survey / study and the findings and representations of the Biological Technical Report are due to these operations.

Ecological Restoration Service
3762 Brant St.
San Diego, CA 92103
F&W permit TE835549-1
August 2, 2002

Hedy Levine
REC Consultants, Inc.
9517 Grossmont Summit Dr.
La Mesa, CA 91940

Dear Ms. Levine

Below is the a report on my one time examination of two basins ponding water at the Montecito Ranch site, as you requested. Let me know if I can help you further.

Sincerely,



Chuck Black
ERS

**Examination of Two Vernal Pools at the Montecito Ranch
Site in Ramona for the Presence of Fairy Shrimp.**

I was requested by Elyssa Robertson of REC Consultants, San Diego, CA. to examine two vernal pools holding water at the Montecito Ranch Site on March 19th, 2001 for the presence of fairy shrimp.

The first of the two pools examined was a large (approximately 300-400 square meters) pool in the corner of a pasture used for grazing, just off a paved road near the entrance to the ranch. Maximum water depth in this basin was approximately 20 cm. The water was dark black, typical of pools with large amounts of recently decayed organic matter, and occasionally anaerobic conditions. I waded through this pool dipping the water with a fine-mesh aquarium net in multiple locations, and did not find any fairy shrimp or other freshwater crustaceans or amphibians.

A second basin in a different area of the field was pointed out to me. This basin had earlier ponded water, but was dry at the time of my visit.

A third basin, several miles further in the ranch area, was visited. This basin was formed by a dirt berm, and was probably constructed to water stock. It

was surrounded by chamise chaparral type vegetation. This basin had standing water approximately 20 square meters in area, in several discrete locations within the overall basin. Maximum water depth was approximately 15 cm. There were large numbers of tadpoles (> 100 s/square meter, not identified to species by me), and mosquito larvae, and a small number of ostracodes in this clear water. No fairy shrimp were observed in the different areas, or were found in several dips with the net.

It is impossible to say whether fairy shrimp populations existed in these pools based on this single visit. Large populations of endangered San Diego fairy shrimp, *Branchinecta sandiegonensis*, are found in nearby pool on the Ramona Airport property and in pools on the Highland Valley Estates area. Fairy shrimp in San Diego County typically hatch in late fall or early winter when rains fill basins. Pools with large populations of shrimp in January or February frequently support no hatched shrimp later in the spring. This is probably due to a combination of water chemistry and physical properties, and to the buildup of predators later in the year. Tadpoles are voracious predators of fairy shrimp, and any hatched shrimp in the second-examined basin would likely have been eaten by them.

No further wet season or sampling was conducted on these basins by ERS personnel. These limited results were not reported to the Fish and Wildlife Service at the time of the survey, but conversations about this sampling have been held with Carlsbad Field Office Service personnel within the past several months.

Please Note:

The following survey or study was conducted on Montecito Ranch prior to the agricultural operations performed onsite in 2001. Any discrepancies between this survey / study and the findings and representations of the Biological Technical Report are due to these operations.



Engineering, Planning,
Environmental Sciences and
Management Services

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Encinitas, California 92024

760.942.5147
Fax 760.632.0164

20 July 1998

1378-01

Mr. Doug Krofta
U.S. Fish and Wildlife Service
2730 Loker Avenue West
Carlsbad, California 92008

Subject: *Presence/Absence Survey for Vernal Pool Branchiopods - Montecito Ranch,
County of San Diego, California*

Dear Mr. Krofta:

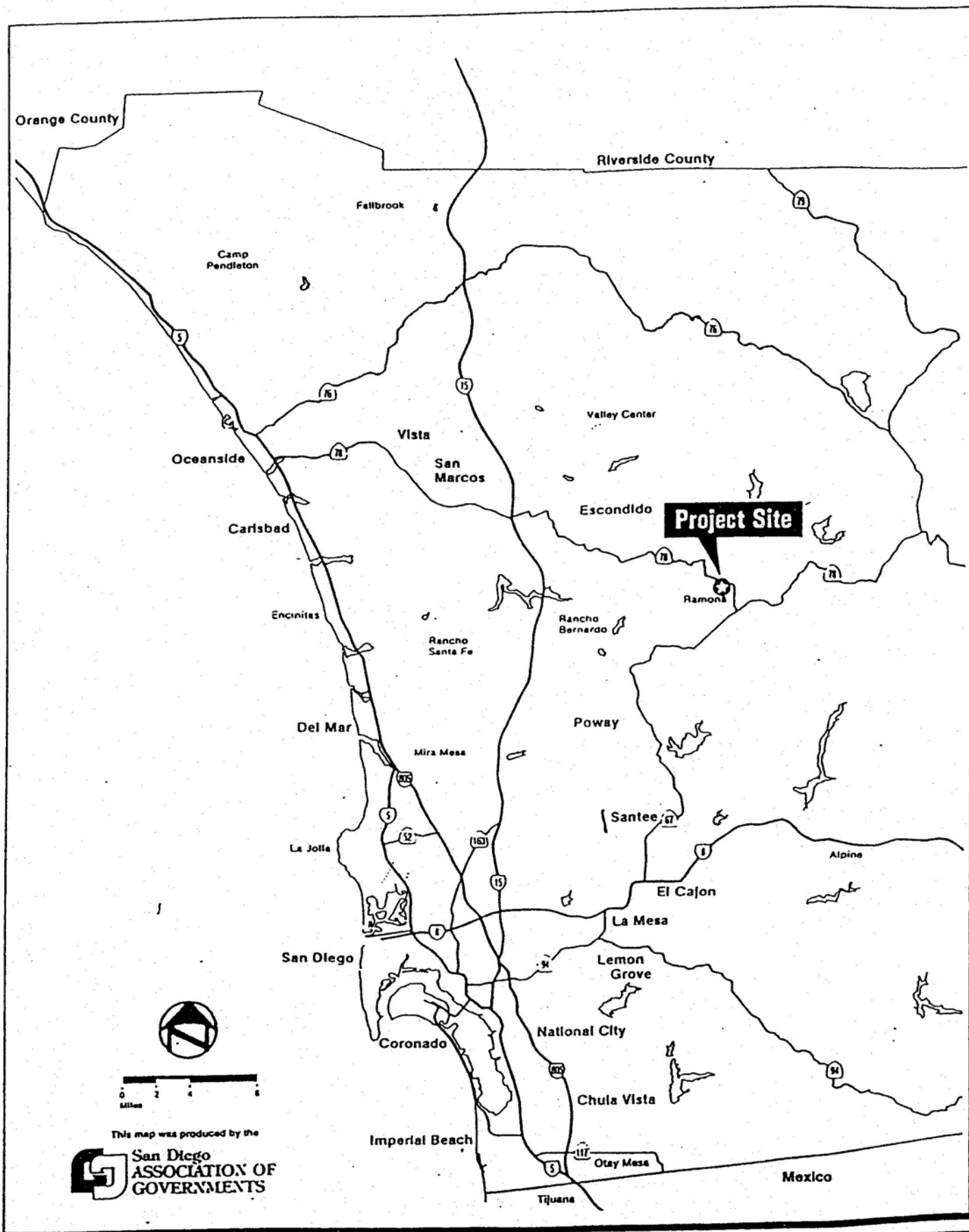
A presence/absence survey for vernal pool branchiopods was conducted for Montecito Ranch, a potential urban development project, during the months of February through June, 1998. The approximately 935-acre property is located in the vicinity of Ramona and contains five vernal pools or areas that contain water for some period of time each year. The survey was conducted by Anita Hayworth (PRT-781084) of DUDEK. The survey focused on the determination of the presence/absence of three vernal pool brachiopod species: Riverside fairy shrimp (*Streptocephalus woottoni*), San Diego fairy shrimp (*Branchinecta sandiegonensis*), and vernal pool fairy shrimp (*Branchinecta lynchi*) on Montecito Ranch according to the April 19, 1996 *Interim Survey Guidelines to Permittees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Listed Vernal Pool Branchiopods*.

Project Location

Montecito Ranch is a 935-acre site located in Romana, County of San Diego, California (Figure 2). The site is located south of San Pasqual Valley Road (Highway 78), north of the Ramona Airport, east of private ranches and undeveloped areas of the County of San Diego, and west of the central part of the city of Ramona. The property is bounded by Montecito Road on the south, State Route 78 on the north, and Pine Street on the east. The project area lies in the U.S. Geological Survey (USGS) 7.5 minute topographic map, San Pasqual Quadrangle within Sections 4, 5, 7, 8 and unnumbered Sections; T13S, R1W, R1E.

General Existing Conditions

The property is located within a large valley formed by the Santa Maria Creek which runs offsite, south of the property. The valley is predominantly rural in character with grazing land for cattle interspersed with smaller cultivated areas. The topography of the project site consists of rocky foothills surrounding a gently sloping valley. Elevations onsite range from about 1,411 feet above mean sea level in the far southwestern corner of the property, to about 1,768 feet at the peak of a rocky hill near the southern-middle portion of the site.



Mr. Doug Krofta

Re: Vernal Pool Branchiopod Survey for Montecito Ranch

20 July 1998

Pg. 4

Methods

The focused survey for the vernal pool branchiopods was conducted on the project site on February 10, 25, March 11, 24, April 9, 29, May 13, and 27, 1998 by DUDEK biologist Dr. Anita M. Hayworth (AMH). Dr. Hayworth holds a federal permit (PRT-781084) to conduct surveys for the vernal pool branchiopods. The survey was conducted following the currently accepted protocol of the U.S. Fish and Wildlife Service. The survey included visits to the site at approximately biweekly intervals from two weeks after the date the pools held 3 cm of standing water for 24 hours after a rain event (i.e. the pools were inundated). The survey was concluded after the pools were no longer inundated. A dip net was used to assist with the surveys. The weather conditions during the surveys are tabulated below. Pool 1 was surveyed for a number of weeks and held water for a relatively long period. Pools 2 through 5 are more shallow pools and were inundated for approximately two months. A 1" = 400' aerial photograph of the property was available to aid in mapping. Binoculars (10 x 50) were used to aid in detecting and identifying wildlife species. The weather conditions were generally pleasant and mild as shown in the table below.

Schedule of Surveys for Montecito Ranch

| Date | Personnel | Temperature | Wind | Sky | Time |
|---------|-----------|-------------|---------|----------|-------------|
| Feb. 10 | AMH | 65 | 1-3 MPH | clear | 1000 |
| Feb. 25 | AMH | 60 | 3-8 MPH | overcast | 0900 |
| Mar. 11 | AMH | 63 - 78°F | 0-5 MPH | clear | 0800 - 1430 |
| Mar. 24 | AMH | 72 - 81°F | 1-7 MPH | clear | 0800 - 1400 |
| Apr. 9 | AMH | 66 - 75°F | 2-5 MPH | clear | 0900 - 1400 |
| Apr. 29 | AMH | 73°F | 2-5 MPH | clear | 1000 |
| May 13 | AMH | 68°F | 1-4 | clear | 0900 |
| May 27 | AMH | 75°F | 1-5 | clear | 1000 |

Vegetation Characteristics

Natural habitat within the property is a mixture of coastal sage scrub (CSS), southern mixed chaparral, Engelmann oak woodland, southern coast live oak riparian forest, and southern willow scrub. Four non-native or disturbed habitats are defined: non-native grassland/pastureland, buckwheat scrub, ornamental plantings, and disturbed habitat.

Mr. Doug Krofta

Re: Vernal Pool Branchiopod Survey for Montecito Ranch

20 July 1998

Pg. 5

Coastal sage scrub onsite is dominated by either California sagebrush, black sage (*Salvia mellifera*), or white sage (*Salvia apiana*), with occasional individuals of laurel sumac, California buckwheat, and chaparral beard-tongue (*Keckiella antirrhinoides*). The understory is comprised of a variety of annuals, including common forget-me-not (*Cryptantha intermedia*), soap plant, evening-primrose (*Camissonia* sp.), common eucrypta (*Eucrypta chrysanthemifolia*), Coulter's lupine (*Lupinus parviflorus*), wild sweet-pea (*Lathyrus vestitus*), and many others. The vegetation is fairly dense and ranges from about 2 to 3 feet (0.6 -1 .0 m) in height. In the eastern portion of the property, Engelmann oaks (*Quercus engelmannii*) are sparsely distributed throughout some of the coastal sage scrub. There are only a couple of patches that support typical, undisturbed, high quality coastal sage scrub, and these patches are small and isolated from contiguous patches of this community type.

Buckwheat scrub occurs in areas that have been subjected to intense or repeated disturbance, such as the areas surrounding and/or immediately adjacent to the pastures. These areas are dominated by either California buckwheat or deerweed (*Lotus scoparius*) nearly to the exclusion of all other shrubs or subshrubs. Some patches support a slightly greater diversity of plant species, but in general, the native shrubs in these places are low and scattered. Non-native grasses, such as foxtail chess (*Bromus madritensis* var. *rubens*) and wild oat (*Avena* sp.), and weedy introduced annuals, such as mustards (*Brassica* and *Sisymbrium* spp.) and filaree (*Erodium* spp.), dominate the understory.

Southern mixed chaparral occurs on slopes and ridges where large outcrops of bedrock provide a somewhat more moist environment. The composition and dominant species present in this community vary with slope, soil, and exposure. Typical shrubs found in southern mixed chaparral onsite include chamise (*Adenostoma fasciculatum*), Ramona lilac (*Ceanothus tomentosus*), mission manzanita (*Xylococcus bicolor*), coast spicebush (*Cneoridium dumosa*), sugar bush (*Rhus ovata*), smooth mountain-mahogany (*Cercocarpus minutiflorus*), scrub oak (*Quercus berberidifolia*), black sage, and our Lord's candle (*Yucca whipplei*). The understory is usually sparse with chia (*Salvia columbaria*), hooked navarretia (*Navarretia hamata*), California thread-stem (*Pterostegia drymarioides*), and miner's-lettuce (*Claytonia perfoliata*) as common components.

Onsite there are two fairly distinct types of oak woodland, southern coast live oak riparian forest and Engelmann oak woodland. In southern coast live oak riparian forest, the trees typically form a closed canopy surrounding a mesic drainage. In contrast, Engelmann oak woodlands are more open and occur on gentle slopes or flatlands.

In riparian areas, coast live oaks form a closed-canopy woodland with a scattered understory of shrubs including poison-oak, San Diego sedge (*Carex spissa*), desert grape (*Vitis girdiana*), California wild rose, and various other herbs and forbs. The major north-south running drainage near the middle of the property and the northeastern portion of the property adjacent to Highway 78 supports extensive, high quality, riparian woodlands which are part of the much larger riparian system of Clevenger Canyon that runs along the northern boundary of the site.

There is a narrow band of southern willow scrub onsite that runs along the southern edge of the property, extending westward from Summer Glen Road. It is a well-developed habitat dominated by arroyo willow (*Salix lasiolepis*) with one or two Fremont cottonwoods.

Three vernal pools were discovered onsite, all in the extreme southwestern portion of the property in the disturbed pastureland. These areas are represented by small depressions where the vegetation is conspicuously different from that of the surrounding habitat. Vernal pool indicator species found in two of the three pools include woolly marbles (*Psilocarphus brevissimus*), flowering quillwort (*Lilaea scilloides*), long-stalk water-starwort (*Callitriche longipedunculata*), grass poly (*Lythrum hyssopifolium*), and dwarf stonecrop (*Crassula aquatica*). Other plants present include spurry (*Spergula arvensis*), toad rush (*Juncus bufonius*), doveweed (*Eremocarpus setigerus*), Bigelow's plantain (*Plantago bigelovii* ssp. *californica*), and scarlet pimpernel (*Anagallis arvensis*). None of the state- or federally-listed plant species associated with vernal pools were detected. The two vernal pools with indicator species occupy approximately 2,500 square feet and 864 square feet (total of 0.08 acre), but together their watersheds may exceed 5 acres.

Non-native grassland vegetation areas are dominated by two species of filaree (*Erodium botrys* and *E. cicutarium*) and doveweed, nearly to the exclusion of all other species. Other species present in this non-native habitat include introduced grasses, such as common barley (*Hordeum vulgare*) and slender oat (*Avena barbata*), and a variety of weedy annuals such as mustards (*Brassica* and *Sisymbrium* species), common fiddleneck (*Amsinckia menziesii* var. *intermedia*), and redmaids (*Calandrinia ciliata*).

Two eucalyptus (*Eucalyptus* sp.) groves are present in the western portion of the property. The larger is bordered on the south and west by pastureland and on the north and east by disturbed (burned and grazed) coastal sage scrub. The grove recently has been thinned considerably to remove the large number of dead trees killed by a recent infestation of the introduced eucalyptus-boring longhorn beetle (*Cerambycidae*), *Phoracantha semipunctatus*. Where undisturbed by recent thinning activities, such as along a narrow band at the northern portion of the grove, the understory consists of moderately high quality coastal sage scrub dominated by California sagebrush and black sage. There is a short row of eucalyptus trees and short row of olive trees (*Olea europaea*) near the southeastern corner of the site.

Disturbed habitat within the project boundary includes dirt roads, scraped areas, and the site of the Montecito Ranch House. These areas either lack vegetation or are characterized by adventive, weedy, or ornamental species.

Results

No vernal pool branchiopods were detected during the surveys of Montecito Ranch.

Mr. Doug Krofta
Re: Vernal Pool Branchiopod Survey for Montecito Ranch

20 July 1998
Pg. 7

Concluding Remarks

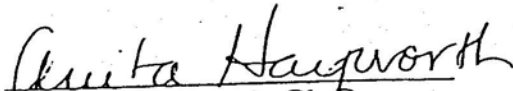
The survey resulted in no vernal pool branchiopod detections. The western-most pond may be inundated for too long of a period to support fairy shrimp. The rest of the pools appear to be suitable but contain large numbers of spadefoot and western toad tadpoles for the entire inundation period.

Color photographs of the project site (two taken from opposing ends of the site, and three depicting the survey area) are included.

Please feel free to call me at (760) 942-5147 if you have any questions regarding the contents of this letter.

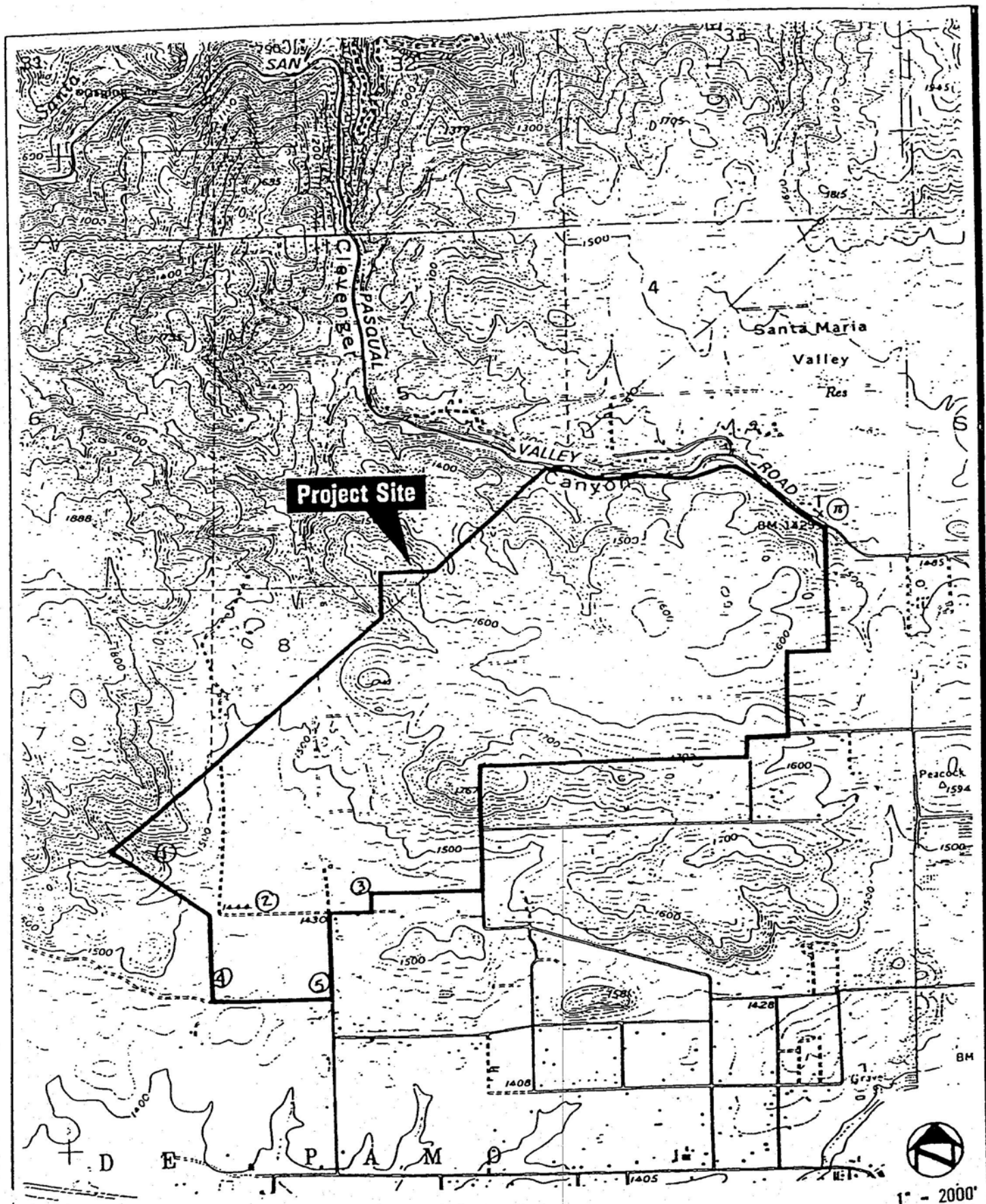
Very truly yours,

Dudek & Associates, Inc.


Anita M. Hayworth, Ph.D.
Biologist V
Permit Number PRT-781084

cc: Gil Snowden, Caprock
Chris Morrow, Morrow Consulting
June Collins, DUDEK

attachments: photographs
U.S. Fish and Wildlife Service Vernal Pool Data Sheets



SOURCE: USGS 7.5 Minute Series, San Pasqual & Ramona Quadrangles

~~U.S. Fish and Wildlife Service Vernal Pool Data Sheet~~
U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: ☒ yes no

Copepods: ☒ yes no

Ostracods ☒ yes no

Fish yes no

Frogs ☒ yes no

Salamanders yes no

Waterfowl yes no

Other (specify) _____

Adoneta

Mosquito

Voucher Specimens

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

tad pole

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species

Individuals

Accession/Catalog #

Pool #

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

| | | |
|-----------------|-------|----|
| Cladocerans: | yes | no |
| Conchostracans: | yes | no |
| Copepods: | yes | no |
| Ostracods | yes | no |
| Fish | yes | no |
| Frogs | yes | no |
| Salamanders | yes | no |
| Waterfowl | yes | no |
| Other (specify) | _____ | |

Insects: (adult or larvae)

| | | |
|-----------------|-------|----|
| Anisoptera: | yes | no |
| Zygoptera: | yes | no |
| Hydrophilidae: | yes | no |
| Dytiscidae: | yes | no |
| Corixidae: | yes | no |
| Notonectidae: | yes | no |
| Belostomatidae: | yes | no |
| Other (specify) | _____ | |

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

| <u>Species</u> | <u># Individuals</u> | <u>Accession/Catalog #</u> | <u>Pool #</u> |
|----------------|----------------------|----------------------------|---------------|
|----------------|----------------------|----------------------------|---------------|

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no
Conchostracans: yes no
Copepods: yes no
Ostracods: yes no
Fish: yes no
Frogs: yes no
Salamanders: yes no
Waterfowl: yes no
Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no
Zygoptera: yes no
Hydrophilidae: yes no
Dytiscidae: yes no
Corixidae: yes no
Notonectidae: yes no
Belostomatidae: yes no
Other (specify) _____

Voucher Specimens

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Species

Individuals

Accession/Catalog #

Pool #

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

| | | |
|-----------------|-----|----|
| Cladocerans: | yes | no |
| Conchostracans: | yes | no |
| Copepods: | yes | no |
| Ostracods | yes | no |
| Fish | yes | no |
| Frogs | yes | no |
| Salamanders | yes | no |
| Waterfowl | yes | no |
| Other (specify) | | |

Insects: (adult or larvae)

| | | |
|-----------------|-----|----|
| Anisoptera: | yes | no |
| Zygoptera: | yes | no |
| Hydrophilidae: | yes | no |
| Dytiscidae: | yes | no |
| Corixidae: | yes | no |
| Notonectidae: | yes | no |
| Belostomatidae: | yes | no |
| Other (specify) | | |

Voucher Specimens

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Species

Individuals

Accession/Catalog #

Pool #

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: yes no

Copepods: yes no

Ostracods: ☒ yes no

Fish: yes no

Frogs: ☒ yes no

Salamanders: yes no

Waterfowl: yes no

Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

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Species

Individuals

Accession/Catalog #

Pool #

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchiostracans: yes no

Copepods: yes no

Ostracods yes no

Fish yes no

Frogs yes no

Salamanders yes no

Waterfowl yes no

Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

| <u>Species</u> | <u># Individuals</u> | <u>Accession/Catalog #</u> | <u>Pool #</u> |
|----------------|----------------------|----------------------------|---------------|
|----------------|----------------------|----------------------------|---------------|

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

| | | |
|-----------------|------------|----|
| Cladocerans: | yes | no |
| Conchostracans: | yes | no |
| Copepods: | yes | no |
| Ostracods | yes | no |
| Fish | yes | no |
| Frogs | <u>yes</u> | no |
| Salamanders | yes | no |
| Waterfowl | yes | no |
| Other (specify) | _____ | |

eggs

Insects: (adult or larvae)

| | | |
|-----------------|-------|----|
| Anisoptera: | yes | no |
| Zygoptera: | yes | no |
| Hydrophilidae: | yes | no |
| Dytiscidae: | yes | no |
| Corixidae: | yes | no |
| Notonectidae: | yes | no |
| Belostomatidae: | yes | no |
| Other (specify) | _____ | |

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

| <u>Species</u> | <u># Individuals</u> | <u>Accession/Catalog #</u> | <u>Pool #</u> |
|----------------|----------------------|----------------------------|---------------|
|----------------|----------------------|----------------------------|---------------|

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: yes no

Copepods: yes no

Ostracods yes no

Fish yes no

Frogs yes no

Salamanders yes no

Waterfowl yes no

Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species

Individuals

Accession/Catalog #

Pool #

~~U.S. Fish and Wildlife Service Vernal Pool Data Sheet~~
U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

None

Notostracans:

(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: yes no

Copepods: yes no

Ostracods: yes no

Fish: yes no

Frogs: yes no

Salamanders: yes no

Waterfowl: yes no

Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species

Individuals

Accession/Catalog #

Pool #

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

None

Notostracans:

(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: yes no

Copepods: yes no

Ostracods yes no

Fish yes no

Frogs yes no

Salamanders yes no

Waterfowl yes no

Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

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Species

Individuals

Accession/Catalog #

Pool #

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

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Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

None

Notostracans:

(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: ☒ yes no

Copepods: yes no

Ostracods: ☒ yes no

Fish: yes no

Frogs: ☒ yes no tad

Salamanders: yes no

Waterfowl: yes no

Other (specify) _____

mosquito

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species

Individuals

Accession/Catalog #

Pool #

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status) None

Notostracans:
(note reproductive status) None

(Optional) Species Observations:

| | | |
|-----------------|-----------------------------------|---------------|
| Cladocerans: | yes | no |
| Conchostracans: | <u>yes</u> | no |
| Copepods: | yes | no |
| Ostracods | <u>yes</u> | no |
| Fish | yes | no |
| Frogs | <u>yes</u> | no <u>tad</u> |
| Salamanders | yes | no |
| Waterfowl | yes | no |
| Other (specify) | <u>mosquito</u> <u>odonate</u> | |

Insects: (adult or larvae)

| | | |
|-----------------|-----|----|
| Anisoptera: | yes | no |
| Zygoptera: | yes | no |
| Hydrophilidae: | yes | no |
| Dytiscidae: | yes | no |
| Corixidae: | yes | no |
| Notonectidae: | yes | no |
| Belostomatidae: | yes | no |
| Other (specify) | | |

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species

Individuals

Accession/Catalog #

Pool #

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

None

Notostracans:

(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: yes no

Copepods: yes no

Ostracods yes no

Fish yes no

Frogs yes no *eggs*

Salamanders yes no

Waterfowl yes no

Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species

Individuals

Accession/Catalog #

Pool #

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:

(note reproductive status)

None

Notostracans:

(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: yes no

Copepods: yes no

Ostracods yes no

Fish yes no

Frogs yes no

Salamanders yes no

Waterfowl yes no

Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species

Individuals

Accession/Catalog #

Pool #

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: yes no

Copepods: yes no

Ostracods: yes no

Fish: yes no

Frogs: yes no

Salamanders: yes no

Waterfowl: yes no

Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species

Individuals

Accession/Catalog #

Pool #

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: yes no

Copepods: yes no

Ostracods: yes no

Fish: yes no

Frogs: yes no

Salamanders: yes no

Waterfowl: yes no

Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

| <u>Species</u> | <u># Individuals</u> | <u>Accession/Catalog #</u> | <u>Pool #</u> |
|----------------|----------------------|----------------------------|---------------|
|----------------|----------------------|----------------------------|---------------|

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: yes no

Copepods: yes no

Ostracods yes no

Fish yes no

Frogs yes no

Salamanders yes no

Waterfowl yes no

Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species

Individuals

Accession/Catalog #

Pool #

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: ☒ yes no

Copepods: ☒ yes no

Ostracods: ☒ yes no

Fish: ☒ yes no

Frogs: ☒ yes no

Salamanders: yes no

Waterfowl: yes no

Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species

Individuals

Accession/Catalog #

Pool #

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: yes no

Copepods: yes no

Ostracods: yes no

Fish: yes no

Frogs: yes no

Salamanders: yes no

Waterfowl: yes no

Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

| <u>Species</u> | <u># Individuals</u> | <u>Accession/Catalog #</u> | <u>Pool #</u> |
|----------------|----------------------|----------------------------|---------------|
|----------------|----------------------|----------------------------|---------------|

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans: *None*
(note reproductive status)

None
Notostracans:
(note reproductive status)

(Optional) Species Observations:

Cladocerans: yes no
Conchostracans: yes no
Copepods: yes no
Ostracods yes no
Fish yes no
Frogs yes no
Salamanders yes no
Waterfowl yes no
Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no
Zygoptera: yes no
Hydrophilidae: yes no
Dytiscidae: yes no
Corixidae: yes no
Notonectidae: yes no
Belostomatidae: yes no
Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

| <u>Species</u> | <u># Individuals</u> | <u>Accession/Catalog #</u> | <u>Pool #</u> |
|----------------|----------------------|----------------------------|---------------|
|----------------|----------------------|----------------------------|---------------|

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: ☒ yes no

Copepods: yes no

Ostracods yes no

Fish yes no

Frogs ☒ yes no

Salamanders yes no

Waterfowl yes no

Other (specify) _____

mosquito

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species

Individuals

Accession/Catalog #

Pool #

~~U.S. Fish and Wildlife Service Vernal Pool Data Sheet~~
U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: yes no

Copepods: yes no

Ostracods yes no

Fish yes no

Frogs yes no

Salamanders yes no

Waterfowl yes no

Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

| <u>Species</u> | <u># Individuals</u> | <u>Accession/Catalog #</u> | <u>Pool #</u> |
|----------------|----------------------|----------------------------|---------------|
|----------------|----------------------|----------------------------|---------------|

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: ☒ yes no

Conchostracans: ☒ yes no

Copepods: yes no

Ostracods yes no

Fish yes no

Frogs ☒ yes no

Salamanders yes no

Waterfowl yes no

Other (specify) _____

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

| <u>Species</u> | <u># Individuals</u> | <u>Accession/Catalog #</u> | <u>Pool #</u> |
|----------------|----------------------|----------------------------|---------------|
|----------------|----------------------|----------------------------|---------------|

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans: None
(note reproductive status)

Notostracans: None
(note reproductive status)

(Optional) Species Observations:

| | | |
|-----------------|------------|----|
| Cladocerans: | yes | no |
| Conchostracans: | yes | no |
| Copepods: | yes | no |
| Ostracods | yes | no |
| Fish | yes | no |
| Frogs | <u>yes</u> | no |
| Salamanders | yes | no |
| Waterfowl | yes | no |
| Other (specify) | _____ | |

Insects: (adult or larvae)

| | | |
|-----------------|-------|----|
| Anisoptera: | yes | no |
| Zygoptera: | yes | no |
| Hydrophilidae: | yes | no |
| Dytiscidae: | yes | no |
| Corixidae: | yes | no |
| Notonectidae: | yes | no |
| Belostomatidae: | yes | no |
| Other (specify) | _____ | |

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

| <u>Species</u> | <u># Individuals</u> | <u>Accession/Catalog #</u> | <u>Pool #</u> |
|----------------|----------------------|----------------------------|---------------|
|----------------|----------------------|----------------------------|---------------|

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: yes no

Copepods: yes no

Ostracods yes no

Fish yes no

Frogs yes no

Salamanders yes no

Waterfowl yes no

Other (specify) snout - 2 stripe

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species

Individuals

Accession/Catalog #

Pool #

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

Species Observed: state none or estimate # of individuals present in terms of an order of magnitude (e.g., 10's, 100's, 1000's)

Anostracans:
(note reproductive status)

None

Notostracans:
(note reproductive status)

None

(Optional) Species Observations:

Cladocerans: yes no

Conchostracans: yes no

Copepods: yes no

Ostracods yes no

Fish yes no

Frogs yes no *eggs*

Salamanders yes no

Waterfowl yes no

Other (specify) _____

Mosquito

Insects: (adult or larvae)

Anisoptera: yes no

Zygoptera: yes no

Hydrophilidae: yes no

Dytiscidae: yes no

Corixidae: yes no

Notonectidae: yes no

Belostomatidae: yes no

Other (specify) _____

Voucher Specimens

Specimens shall be preserved according to the standards of the institution in which they will be accessioned.

Species

Individuals

Accession/Catalog #

Pool #

Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ☐ no ☒ yes

Required color slides and/or photographs for the project site are included: ☐ no ☒ yes

Date: 2/25/98 Time: 0900 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 1

Township: 13S Range: 1E Section: Unnumbered 33° 3' 30" lat. 116° 55' long.

Temperature: Water: 47 °C Air: 60 °C

Pool Depth: at time of sampling: 100 cm Surface Area: at time of sampling: 70 m x 30 m

estimated maximum: cm estimated maximum: m x m

Habitat Condition: (circle where appropriate)

- undisturbed ☐ ☒ disturbed: ☐ tire tracks ☐ garbage ☐ discing/plowing
- ungrazed ☐ ☒ grazed: ☒ cattle ☐ horses ☐ sheep ☐ other
- ☐ light ☒ moderate ☐ heavy
- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): ppm or mg/l Conductivity: uMHO

Dissolved NH₄: ppt or ppm Dissolved Oxygen: ppm or mg/l

pH: Turbidity: (secchi disc depth) cm or: clear to bottom

Salinity: ppt or ppm Total Dissolved Solids (TDS): ppm

Notes:

Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 2/10/98 Time: 1000 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 1

Township: 13S Range: 15E Section: Unnumbered 33°3'30" lat. 116°55' long.

Temperature: Water: ___ °C Air: ___ °C

Pool Depth: 100? deep-looks like Surface Area: 50m 30m
at time of sampling: looks like at time of sampling: 150' m x 100' m

estimated maximum: ___ cm estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed

tire tracks

garbage

discing/plowing

- ungrazed

grazed

cattle

horses

sheep

other

light

moderate

heavy

- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l

Conductivity: ___ uMHO

Dissolved NH₄: ___ ppt or ppm

Dissolved Oxygen: ___ ppm or mg/l

pH: ___

Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___

Salinity: ___ ppt or ppm

Total Dissolved Solids (TDS): ___ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet

Wet Season Survey

Note: Please fill out the required information completely for each site visit:

This form is being submitted to serve as part of the 90-day report: ☐ no ☒ yes

Required color slides and/or photographs for the project site are included: ☐ no ☒ yes

Date: 3/24/98 Time: 0800 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 1

Township: 13S Range: 1E Section: Unnumbered 33°3'30" lat. 116°55' long.

Temperature: Water: 18.55°C Air: 72 °C

Pool Depth: at time of sampling: 100 cm Surface Area: 50 x 30 m
at time of sampling: 40 m x 50 m

estimated maximum: cm estimated maximum: m x m

Habitat Condition: (circle where appropriate)

- undisturbed ☐ ☒ disturbed: tire tracks garbage discing/plowing
- ungrazed ☐ ☒ grazed: ☒ cattle light ☒ horses moderate ☐ sheep heavy ☐ other
- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): ppm or mg/l

Conductivity: uMHO

Dissolved NH₄: ppt or ppm

Dissolved Oxygen: ppm or mg/l

pH: Turbidity: (secchi disc depth) cm or: clear to bottom

Salinity: ppt or ppm

Total Dissolved Solids (TDS): ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 3/11/98 Time: 0800 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 1

Township: 13S Range: 15E Section: Unnumbered 33°3'30" lat. 116°55' long.

Temperature: Water: 49 °C Air: 63 °C

Pool Depth: at time of sampling: 100 cm Surface Area: at time of sampling: 50 m x 30 m

estimated maximum: ___ cm estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed (disturbed) tire tracks garbage discing/plowing
- ungrazed (grazed) (cattle) horses sheep other ___
light (moderate) heavy
- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l

Conductivity: ___ uMHO

Dissolved NH₄: ___ ppt or ppm

Dissolved Oxygen: ___ ppm or mg/l

pH: ___ Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___

Salinity: ___ ppt or ppm

Total Dissolved Solids (TDS): ___ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pools Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit:

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 4/29/98 Time: 1800 73 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 1

Township: 13S Range: 15 Section: Unnumbered 33°3'30" lat. 116°55' long.

Temperature: Water: 55 °C Air: 73 °C

Pool Depth: at time of sampling: 75 cm Surface Area: at time of sampling: 35 m x 25 m

estimated maximum: ___ cm estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed tire tracks garbage discing/plowing
- ungrazed grazed cattle horses sheep other ___
light moderate heavy
- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l

Conductivity: ___ uMHO

Dissolved NH₄: ___ ppt or ppm

Dissolved Oxygen: ___ ppm or mg/l

pH: ___ Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___

Salinity: ___ ppt or ppm

Total Dissolved Solids (TDS): ___ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 4/19/98 Time: 0900 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 1

Township: 13S Range: 1E Section: Unnumbered 33°3'30" lat. 116°55' long.

Temperature: Water: 45 °C Air: 66 °C

Pool Depth: Surface Area:
at time of sampling: 100 cm at time of sampling: 50 m x 30 m

estimated maximum: ___ cm estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed tire tracks garbage discing/plowing
- ungrazed grazed cattle horses sheep other ___
light moderate heavy
- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l

Conductivity: ___ uMHO

Dissolved NH₄: ___ ppt or ppm

Dissolved Oxygen: ___ ppm or mg/l

pH: ___ Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___

Salinity: ___ ppt or ppm

Total Dissolved Solids (TDS): ___ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ____ no X yes

Required color slides and/or photographs for the project site are included: ____ no X yes

Date: 5/27/98 Time: 1000 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 1

Township: 13S Range: 15E Section: Unnumbered 33°3'30" lat. 116°55' long.

Temperature: Water: ____ °C Air: 75 °C

Pool Depth: at time of sampling: dry cm Surface Area: at time of sampling: ____ m x ____ m
estimated maximum: ____ cm estimated maximum: ____ m x ____ m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed tire tracks garbage discing/plowing
- ungrazed grazed cattle horses sheep other ____
light moderate heavy
- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): ____ ppm or mg/l Conductivity: ____ uMHO
Dissolved NH₄: ____ ppt or ppm Dissolved Oxygen: ____ ppm or mg/l
pH: ____ Turbidity: (secchi disc depth) ____ cm or: clear to bottom ____
Salinity: ____ ppt or ppm Total Dissolved Solids (TDS): ____ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet

Wet Season Survey

Note: Please fill out the required information completely for each site visit:

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 5/13/98 Time: 0900 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 1

Township: 13S Range: 15E Section: Unnumbered 33°3'30" lat. 116°55' long.

Temperature: Water: 16.5 °C Air: 16.8 °C

Pool Depth: at time of sampling: 40 cm Surface Area: at time of sampling: 20 m x 20 m
estimated maximum: ___ cm estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed (disturbed) tire tracks garbage discing/plowing
- ungrazed (grazed) (cattle) horses sheep other ___
light moderate heavy
- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l Conductivity: ___ uMHO
Dissolved NH₄: ___ ppt or ppm Dissolved Oxygen: ___ ppm or mg/l

pH: ___ Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___

Salinity: ___ ppt or ppm Total Dissolved Solids (TDS): ___ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no ☒ yes

Required color slides and/or photographs for the project site are included: ___ no ☒ yes

Date: 2/10/98 Time: 1000 County: San Diego Quad: San Pascual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 2

Township: 13S Range: 1E Section: — 33° 30' lat. 116° 34' 30" long.

Temperature: Water: 65 °C Air: 65 °C

Pool Depth: at time of sampling: 7 cm Surface Area: at time of sampling: 20 m x 10 m
estimated maximum: ___ cm estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed

☒ disturbed

tire tracks

garbage

discing/plowing

- ungrazed

☒ grazed

☒ cattle

☒ horses

sheep

other

light

☒ moderate

heavy

- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l

Conductivity: ___ uMHO

Dissolved NH₄: ___ ppt or ppm

Dissolved Oxygen: ___ ppm or mg/l

pH: ___

Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___

Salinity: ___ ppt or ppm

Total Dissolved Solids (TDS): ___ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 2/25/98 Time: 0900 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 2

Township: 13S Range: 1E Section: — 33° 30' N lat. 116° 54' 30" W long.

Temperature: Water: 61 °C Air: 60 °C

Pool Depth: at time of sampling: 7 cm Surface Area: at time of sampling: 20 m x 20 m
estimated maximum: ___ cm estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed: cattle horses sheep other ___
light moderate heavy

- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l

Conductivity: ___ uMHO

Dissolved NH₄: ___ ppt or ppm

Dissolved Oxygen: ___ ppm or mg/l

pH: ___ Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___

Salinity: ___ ppt or ppm

Total Dissolved Solids (TDS): ___ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no ☒ yes

Required color slides and/or photographs for the project site are included: ___ no ☒ yes

Date: 3/24/98 Time: 0800 County: San Diego Quad: San Pascual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 2

Township: 13S Range: 1E Section: — 33° 30' lat. 116° 54' 30" long.

Temperature: Water: 78 °C Air: 72 °C

Pool Depth: at time of sampling: 10 cm Surface Area: at time of sampling: 60 m x 15 m

estimated maximum: ___ cm estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed

tire tracks

garbage

discing/plowing

- ungrazed

grazed

cattle

light

horses

moderate

sheep

other ___
heavy

- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l

Conductivity: ___ uMHO

Dissolved NH₄: ___ ppt or ppm

Dissolved Oxygen: ___ ppm or mg/l

pH: ___ Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___

Salinity: ___ ppt or ppm

Total Dissolved Solids (TDS): ___ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 3/11/98 Time: 0800 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 2

Township: 13S Range: 1E Section: — 33° 30' lat. 116° 34' 30" long.

Temperature: Water: 65 °C Air: 63 °C

Pool Depth: at time of sampling: 7 cm Surface Area: at time of sampling: 30 m x 10 m
estimated maximum: ___ cm estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed tire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other ___
light moderate heavy
- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l Conductivity: ___ uMHO
Dissolved NH₄: ___ ppt or ppm Dissolved Oxygen: ___ ppm or mg/l
pH: ___ Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___
Salinity: ___ ppt or ppm Total Dissolved Solids (TDS): ___ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ☐ no ☒ yes

Required color slides and/or photographs for the project site are included: ☐ no ☒ yes

Date: 4/29/98 Time: 1000 County: San Diego Quad: San Pascual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 2

Township: 13S Range: 1E Section: — 33° 30' lat. 116° 54' 30" long.

Temperature: Water: _____ °C Air: _____ °C

Pool Depth: at time of sampling: dry cm Surface Area: at time of sampling: _____ m x _____ m

estimated maximum: _____ cm estimated maximum: _____ m x _____ m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed

tire tracks

garbage

discing/plowing

- ungazed

grazed:

cattle

horses

sheep

other _____

light

moderate

heavy

- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l

Conductivity: _____ uMHO

Dissolved NH₄: _____ ppt or ppm

Dissolved Oxygen: _____ ppm or mg/l

pH: _____ Turbidity: (secchi disc depth) _____ cm or: clear to bottom _____

Salinity: _____ ppt or ppm

Total Dissolved Solids (TDS): _____ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 4/9/98 Time: 0900 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Monticito Ranch Pool #: 2

Township: 13S Range: 1E Section: — 33° 30' lat. 116° 54' 30" long.

Temperature: Water: 66 °C Air: 66 °C

Pool Depth: at time of sampling: 3 cm estimated maximum: _____ cm
Surface Area: at time of sampling: 10 m x 30 m estimated maximum: _____ m x _____ m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed tire tracks garbage discing/plowing
- ungrazed grazed cattle horses sheep other _____
light moderate heavy
- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l Conductivity: _____ uMHO
Dissolved NH₄: _____ ppt or ppm Dissolved Oxygen: _____ ppm or mg/l
pH: _____ Turbidity: (secchi disc depth) _____ cm or: clear to bottom _____
Salinity: _____ ppt or ppm Total Dissolved Solids (TDS): _____ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 2/25/98 Time: 0900 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 3

Township: 13S Range: 1E Section: — 33°3'30" lat. 116°54' long.

Temperature: Water: 62 °C Air: 60 °C

Pool Depth: Surface Area:
at time of sampling: 15 cm at time of sampling: 40 m x 65 m

estimated maximum: ___ cm estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed

Disturbed: fire tracks garbage discing/plowing

- ungrazed

grazed: cattle
light

horses moderate sheep heavy other ___

- land use of habitat: as

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l

Conductivity: ___ uMHO

Dissolved NH₄: ___ ppt or ppm

Dissolved Oxygen: ___ ppm or mg/l

pH: ___ Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___

Salinity: ___ ppt or ppm

Total Dissolved Solids (TDS): ___ ppm

Notes:

Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: no X yes

Required color slides and/or photographs for the project site are included: no X yes

Date: 2/10/98 Time: 1000 County: San Diego Quad: San Pascual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 3

Township: 13.S Range: 1E Section: — 33°3' 30" lat. 116°54' long

Temperature: Water: _____ °C Air: _____ °C

Pool Depth: _____ Surface Area: _____
at time of sampling: 15 cm at time of sampling: 40 m x 60 m

estimated maximum: _____ cm estimated maximum: _____ m x _____ m

Habitat Condition: (circle where appropriate)

- undisturbed

Disturbed:

fire tracks

garbage

discing/plowing

- ungrazed

grazed:

(cattle)

horses

sheep

other

light

moderate

heavy

- land use of habitat:

(Optional) Water Chemistry Data

Alkalinity (total): _____ ppm or mg/l

Conductivity: _____ uMHO

Dissolved NH_4 : _____ ppt or ppm

Dissolved Oxygen: _____ ppm or mg/l

pH: ..

Turbidity: (secchi disc depth) cm or: clear to bottom _____

Salinity : _____ ppt or ppm

Total Dissolved Solids (TDS): _____ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ____ no X yes

Required color slides and/or photographs for the project site are included: ____ no X yes

Date: 3/24/98 Time: 0800 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 3

Township: 13S Range: 1E Section: — 33°3'30" lat. 116°54' long.

Temperature: Water: 78 °C Air: 72 °C

Pool Depth: at time of sampling: 10 cm Surface Area: at time of sampling: 40 m x 50 m
estimated maximum: ____ cm estimated maximum: ____ m x ____ m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed:

fire tracks

garbage

discing/plowing

- ungrazed

grazed:

cattle
light

horses

moderate

sheep

other ____

heavy

- land use of habitat: as

(Optional) Water Chemistry Data

Alkalinity (total): ____ ppm or mg/l

Conductivity: ____ uMHO

Dissolved NH₄: ____ ppt or ppm

Dissolved Oxygen: ____ ppm or mg/l

pH: ____ Turbidity: (secchi disc depth) ____ cm or: clear to bottom ____

Salinity: ____ ppt or ppm

Total Dissolved Solids (TDS): ____ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no ☒ yes

Required color slides and/or photographs for the project site are included: ___ no ☒ yes

Date: 3/11/98 Time: 0800 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 3

Township: 13S Range: 1E Section: — 33°3'30" lat. 116°54' long.

Temperature: Water: 65 °C Air: 63 °C

Pool Depth: Surface Area:
at time of sampling: 10 cm at time of sampling: 60 m x 30 m
estimated maximum: ___ cm estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: fire tracks garbage discing/plowing

- ungrazed

grazed: cattle light horses moderate sheep heavy other ___

- land use of habitat: es

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l

Conductivity: ___ uMHO

Dissolved NH₄: ___ ppt or ppm

Dissolved Oxygen: ___ ppm or mg/l

pH: ___ Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___

Salinity: ___ ppt or ppm

Total Dissolved Solids (TDS): ___ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ____ no X yes

Required color slides and/or photographs for the project site are included: ____ no X yes

Date: 4/29/98 Time: 1000 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 3

Township: 13S Range: 1E Section: — 33°3'30" lat. 116°54' long.

Temperature: Water: ____ °C Air: ____ °C

Pool Depth: at time of sampling: dry cm Surface Area: at time of sampling: ____ m x ____ m
estimated maximum: ____ cm estimated maximum: ____ m x ____ m

Habitat Condition: (circle where appropriate)

- undisturbed disturbed: fire tracks garbage discing/plowing
- ungrazed grazed: cattle horses sheep other ____
light moderate heavy
- land use of habitat: es

(Optional) Water Chemistry Data

Alkalinity (total): ____ ppm or mg/l Conductivity: ____ uMHO

Dissolved NH₄: ____ ppt or ppm Dissolved Oxygen: ____ ppm or mg/l

pH: ____ Turbidity: (secchi disc depth) ____ cm or: clear to bottom ____

Salinity: ____ ppt or ppm Total Dissolved Solids (TDS): ____ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: no X yes

Required color slides and/or photographs for the project site are included: no X yes

Date: 4/9/98 Time: 0900 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 3

Township: 13S Range: 1E Section: — 33°3'30" lat. 116°54' long.

Temperature: Water: 66 °C Air: 66 °C

Pool Depth: at time of sampling: 4 cm estimated maximum: — cm
Surface Area: at time of sampling: 30 m x 10 m estimated maximum: — m x — m

Habitat Condition: (circle where appropriate)

- undisturbed

Disturbed: fire tracks garbage discing/plowing

- ungrazed

grazed: cattle
light

horses sheep other
moderate heavy

- land use of habitat: as

(Optional) Water Chemistry Data

Alkalinity (total): — ppm or mg/l

Conductivity: — uMHO

Dissolved NH₄: — ppt or ppm

Dissolved Oxygen: — ppm or mg/l

pH: — Turbidity: (secchi disc depth) — cm or: clear to bottom —

Salinity: — ppt or ppm

Total Dissolved Solids (TDS): — ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: no ☒ yes

Required color slides and/or photographs for the project site are included: no ☒ yes

Date: 2/25/98 Time: 0900 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 4

Township: 13 S Range: 1 E Section: — 33° 3' lat. 116° 55' long.

Temperature: Water: 63 °C Air: 60 °C

Pool Depth: at time of sampling: 15 cm Surface Area: at time of sampling: 40 m x 15 m
estimated maximum: — cm estimated maximum: — m x — m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed

tire tracks

garbage

discing/plowing

- ungrazed

grazed

cattle

horses

sheep

other —

light

moderate

heavy

- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): — ppm or mg/l

Conductivity: — uMHO

Dissolved NH₄: — ppt or ppm

Dissolved Oxygen: — ppm or mg/l

pH: —

Turbidity: (secchi disc depth) — cm or: clear to bottom —

Salinity: — ppt or ppm

Total Dissolved Solids (TDS): — ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no ☒ yes

Required color slides and/or photographs for the project site are included: ___ no ☒ yes

Date: 2/10/98 Time: 1000 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Monticito Ranch Pool #: 4

Township: 13 S Range: 1 E Section: — 33° 3' lat. 116° 55' long.

Temperature: Water: 62 °C Air: 65 °C

Pool Depth: Surface Area:
at time of sampling: 15 cm at time of sampling: 40 m x 10 m
estimated maximum: ___ cm estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed ☒ disturbed: tire tracks garbage discing/plowing
- ungrazed ☒ grazed: ☒ cattle light ☒ horses moderate sheep heavy other ___
- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l Conductivity: ___ uMHO
Dissolved NH₄: ___ ppt or ppm Dissolved Oxygen: ___ ppm or mg/l
pH: ___ Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___
Salinity: ___ ppt or ppm Total Dissolved Solids (TDS): ___ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no ☒ yes

Required color slides and/or photographs for the project site are included: ___ no ☒ yes

Date: 3/24/98 Time: 0800 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Monticito Ranch Pool #: 4

Township: 13 S Range: 1 E Section: — 33° 3' lat. 116° 55' long.

Temperature: Water: ___ °C Air: 72 °C

Pool Depth: at time of sampling: dry cm Surface Area: at time of sampling: ___ m x ___ m
estimated maximum: ___ cm estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed

tire tracks

garbage

discing/plowing

- ungrazed

grazed

cattle

horses

sheep

other

light

moderate

heavy

- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l

Conductivity: ___ uMHO

Dissolved NH₄: ___ ppt or ppm

Dissolved Oxygen: ___ ppm or mg/l

pH: ___

Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___

Salinity: ___ ppt or ppm

Total Dissolved Solids (TDS): ___ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 3/11/98 Time: 0800 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 4

Township: 13S Range: 1E Section: — 33°3' lat. 116°55' long.

Temperature: Water: 66 °C Air: 63 °C

Pool Depth: at time of sampling: 7 cm estimated maximum: ___ cm
Surface Area: at time of sampling: 60 m x 30 m estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed:

tire tracks

garbage

discing/plowing

- ungrazed

grazed:

cattle

horses

sheep

other ___

light

moderate

heavy

- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l

Conductivity: ___ uMHO

Dissolved NH₄: ___ ppt or ppm

Dissolved Oxygen: ___ ppm or mg/l

pH: ___

Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___

Salinity: ___ ppt or ppm

Total Dissolved Solids (TDS): ___ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 2/25/98 Time: 0900 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 5

Township: 13S Range: 1E Section: — 33°3' lat. 116°54'30" long.

Temperature: Water: 62 °C Air: 60 °C

Pool Depth: at time of sampling: 20 cm Surface Area: at time of sampling: 40 m x 30 m

estimated maximum: ___ cm estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed:

tire tracks

garbage

discing/plowing

- ungrazed

grazed:

cattle

horses

sheep

other ___

light

moderate

heavy

- land use of habitat: as

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l

Conductivity: ___ uMHO

Dissolved NH₄: ___ ppt or ppm

Dissolved Oxygen: ___ ppm or mg/l

pH: ___

Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___

Salinity: ___ ppt or ppm

Total Dissolved Solids (TDS): ___ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 2/10/98 Time: 1000 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 5

Township: 13S Range: 1E Section: — 33°3' lat. 116°54'30" long.

Temperature: Water: 62 °C Air: 65 °C

Pool Depth: at time of sampling: 20 cm estimated maximum: — cm
Surface Area: at time of sampling: 40 m x 30 m estimated maximum: — m x — m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed:

tire tracks

garbage

discing/plowing

- ungrazed

grazed:

cattle

horses

sheep

other —

light

moderate

heavy

- land use of habitat: as

(Optional) Water Chemistry Data

Alkalinity (total): — ppm or mg/l

Conductivity: — uMHO

Dissolved NH₄: — ppt or ppm

Dissolved Oxygen: — ppm or mg/l

pH: —

Turbidity: (secchi disc depth) — cm or: clear to bottom —

Salinity: — ppt or ppm

Total Dissolved Solids (TDS): — ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet
Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ___ no X yes

Required color slides and/or photographs for the project site are included: ___ no X yes

Date: 3/24/98 Time: 0800 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 5

Township: 13S Range: 1E Section: — 33°3' lat. 116°54'30" long.

Temperature: Water: ___ °C Air: 72 °C

Pool Depth: dry Surface Area: ___ m x ___ m
at time of sampling: ___ cm at time of sampling: ___ m x ___ m

estimated maximum: ___ cm estimated maximum: ___ m x ___ m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed:

tire tracks

garbage

discing/plowing

- ungrazed

grazed:

cattle

horses

sheep

other ___

light

moderate

heavy

- land use of habitat: as

(Optional) Water Chemistry Data

Alkalinity (total): ___ ppm or mg/l

Conductivity: ___ uMHO

Dissolved NH₄: ___ ppt or ppm

Dissolved Oxygen: ___ ppm or mg/l

pH: ___

Turbidity: (secchi disc depth) ___ cm or: clear to bottom ___

Salinity: ___ ppt or ppm

Total Dissolved Solids (TDS): ___ ppm

Notes:

U.S. Fish and Wildlife Service Vernal Pool Data Sheet

Wet Season Survey

Note: Please fill out the required information completely for each site visit.

This form is being submitted to serve as part of the 90-day report: ☐ no ☒ yes

Required color slides and/or photographs for the project site are included: ☐ no ☒ yes

Date: 3/11/98 Time: 0800 County: San Diego Quad: San Pasqual

Collector(s): Hayworth Permit #: 781084

Site/Project Name: Montecito Ranch Pool #: 5

Township: 13S Range: 1E Section: — 33°3' lat. 116°4'30" long.

Temperature: Water: 65 °C Air: 63 °C

Pool Depth: at time of sampling: 7 cm Surface Area: at time of sampling: 60 m x 30 m
estimated maximum: — cm estimated maximum: — m x — m

Habitat Condition: (circle where appropriate)

- undisturbed

disturbed: tire tracks garbage discing/plowing

- ungrazed

grazed: cattle light horses moderate sheep other —
heavy

- land use of habitat: ag

(Optional) Water Chemistry Data

Alkalinity (total): — ppm or mg/l

Conductivity: — uMHO

Dissolved NH_4 : — ppt or ppm

Dissolved Oxygen: — ppm or mg/l

pH: — Turbidity: (secchi disc depth) — cm or: clear to bottom —

Salinity: — ppt or ppm

Total Dissolved Solids (TDS): — ppm

Notes:

APPENDIX G

QUINO CHECKERSPOT BUTTERFLY SURVEY RESULTS

Please Note:

The following survey or study was conducted on Montecito Ranch prior to the agricultural operations performed onsite in 2001. Any discrepancies between this survey / study and the findings and representations of the Biological Technical Report are due to these operations.

**Quino Checkerspot Butterfly (*Euphydryas editha quino*) Report
on the Montecito Property**

Prepared for:
Montecito Ranch LLC
402 West Broadway, Suite 2175
San Diego CA 92101

Prepared by:
Elyssa Robertson
Denise Moe
REC Consultants, Inc.
9517 Grossmont Summit Drive
La Mesa, California 91941
Phone # (619) 466-0107

May 2001

1.0 Introduction

The U.S. Fish and Wildlife Service officially listed the Quino checkerspot butterfly (*Euphydryas editha quino*) as "endangered" on January 16, 1997 (U.S. Fish and Wildlife Service, 1997). For this reason the Quino checkerspot is protected under the provisions of the Endangered Species Act of 1973, as amended. As such, "take" of this species, either directly or indirectly, is prohibited by law. In order to help land owners in preventing an unknowing "take" of this species, the U.S. Fish and Wildlife Service has required that land owners conduct a protocol survey on their land prior to project implementation in order to determine the presence or absence of this species.

The quino checkerspot butterfly is one of several subspecies of *Euphydryas editha*. It is a member of the brush-footed butterfly family (Nymphalidae). The Quino checkerspot is associated with a variety of habitats which include clay soil meadows, grassland, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland and semi-desert (Ballmer, *et al.*, 2000). Despite association with a wide range of habitat, distribution of this species is restricted to areas which support the larval host plants. The Quino's primary host plant is *Plantago erecta*. Other possible larval host plant species include *Castilleja exserta* and/or *Cordylanthus rigidus* (USFWS 2000) as well as *Collinsia* and possibly other Scrophulariaceae (Ballmer *et al.* 2000). Generally the flight season for the Quino checkerspot occurs from late February through April, peaking in March or April.

The USFWS determined the 2001 flight season for the Quino checkerspot butterfly in San Diego County for areas south of State Route 78 and below 2000 feet in elevation opened on March 1, 2001. The flight season normally has a duration of five weeks, but was extended by the USFWS for an additional two weeks due to inclement weather, and closed on April 19, 2001. According to the Draft Recovery Plan, the Montecito project is not located within one of the six Recovery Units, however, it does fall within the area recommended by the County for survey (figure 1). The following report documents the findings of a protocol survey conducted on the Montecito Project for the Quino checkerspot butterfly.

2.0 Site Characteristics

The proposed Montecito Project is located in the County of San Diego near the community of Ramona (Figures 2). The project is located on the San Pasqual U.S.G.S. 7.5' Quad, in Township 13 south, Range 1 east (Figure 3). The site is bounded by Montecito Road to the south, State Route 78 on the north, and Pine Street on the east. The property is north and east of the Ramona Airport.

The Montecito project site is approximately 935 acres of pre-dominantly undeveloped land with various dirt roads, active agriculture and an existing residence. The topography of the site consists of rocky foothills surrounding a gently sloping valley. Elevations onsite range from 1,411 feet in the far southwestern corner of the property, to about 1,768 feet at the peak of a rocky hill near the center of the site.

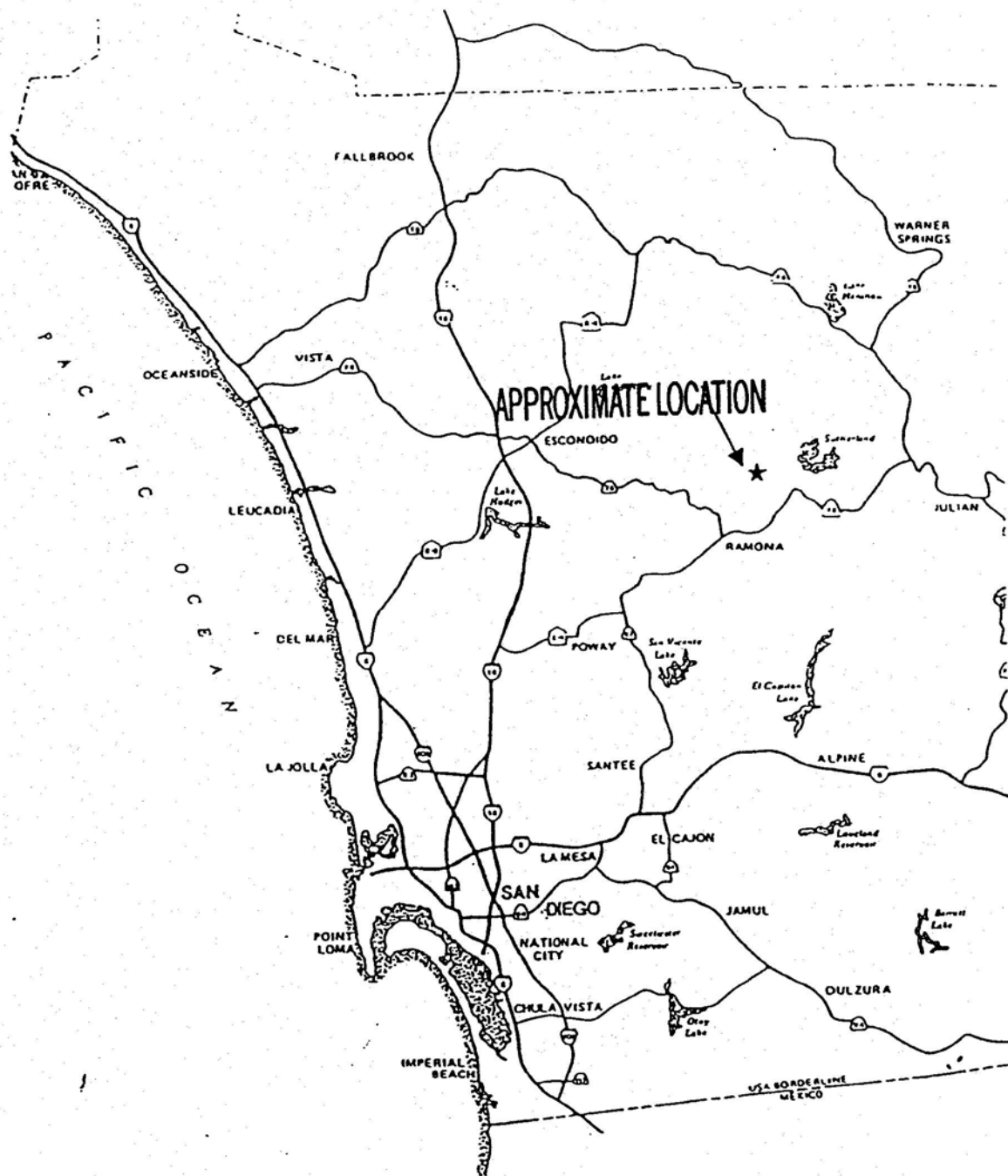
APPROXIMATE LOCATION

**Montecito Property
Focused Survey Location, county of San Diego**

W. M. A. I.

Committee of the Nine Ministers Trust

REC
nsultants, Inc.



REC
Consultants, Inc.

**REGIONAL LOCATION
MONTECITO PROPERTY**
NO SCALE



**Figure
2**

- CSS Coastal Sage Scrub
- ROW Engelmann Oak Woodland
- CHAP Chaparral
- NNG Non-native Grassland
- ORF Oak Riparian Forest
- EUC Eucalyptus
- AG Agriculture
- SWS Southern Willow Scrub
- DIST Disturbed/Developed
- * Larval Host Plant Locations

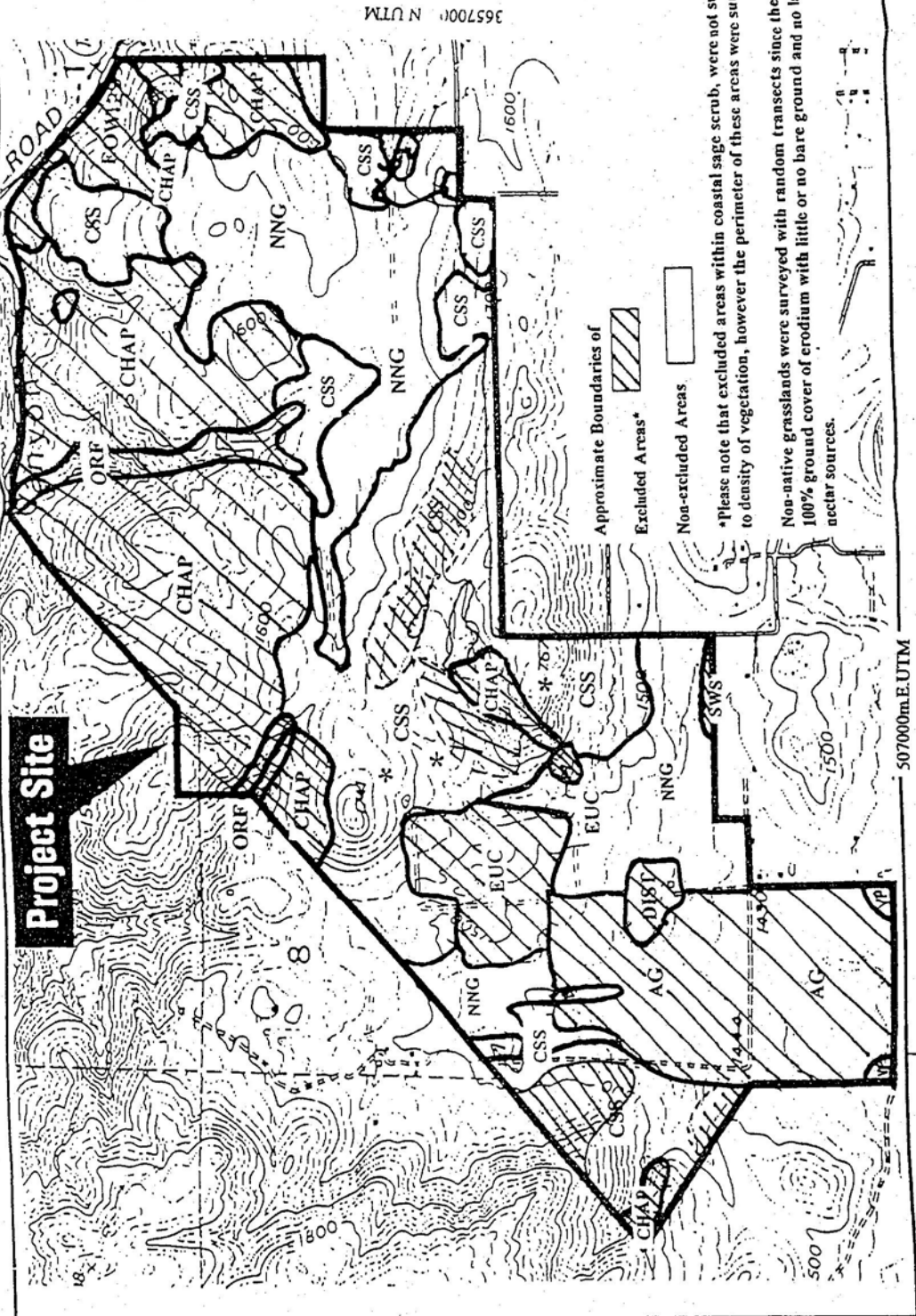


Figure 4

Site Assessment Map Montecito Project Site

REC
Consultants, Inc.

Source: USGS San Diego, August 2005

The soils onsite consist of Cienega soils, Fallbrook sandy loams, Ramona sandy Loam, and Visalia sandy loam, (USDA 1973).

3.0 Vegetation Communities

A habitat assessment was conducted on the Montecito Property prior to the beginning of the survey season and found several large areas of excluded areas onsite (Figure 4). Excluded areas included the house pad, active agricultural land, dense impenetrable closed canopy chaparral and dense coastal sage scrub, closed canopy oak woodland, southern willow scrub, and portions of the eucalyptus woodland. The project site supports ten habitat types: coastal sage scrub (including disturbed coastal sage scrub and buckwheat scrub), southern mixed chaparral, Engelmann oak woodland, southern coast live oak woodland, southern willow scrub, vernal pool, non-native grassland/pastureland, agriculture, ornamental plantings, and disturbed/developed.

Coastal Sage Scrub

Approximately 281.4 acres of coastal sage scrub exist onsite. This includes low quality (sparse buckwheat growing with a dominance of erodium), medium quality dense habitat with little understory, and high quality habitat with a diverse blend of annuals and perennials and well developed native understory. The coastal sage scrub habitat onsite is dominated by California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), white sage (*Salvia apiana*), with scattered laurel sumac (*Malosma laurina*), flat-topped buckwheat (*Eriogonum fasciculatum*), and chaparral beard tongue (*Keckiella antirrhinoides*). The understory is comprised of a variety of annuals, including common forget me not (*Cryptantha intermedia*), soap plant (*Chlorogalum parviflorum*), evening primrose (*Camissonia* sp) and Coulter's lupine (*Lupinus sparsiflorus*). Portions of the coastal sage scrub habitat were excluded from survey for the Quino checkerspot survey. These areas were excluded based on density of habitat, lack of any openings, and ability to penetrate the vegetation.

Southern Mixed Chaparral

Southern mixed chaparral occurs onsite on the slopes and ridges with large rock outcrops. Typical shrubs found in this habitat include chamise (*Adenostoma fasciculata*), blue lilac (*Ceanothus tomentosus*), mission Manzanita (*Xylococcus bicolor*) black sage, sugar bush (*Rhus ovata*), and scrub oak (*Quercus berberidifolia*). All the chaparral habitat onsite was excluded from this survey due to density of vegetation and lack of openings. Dirt roads that bisected this habitat were surveyed. Approximately 241.1 acres of this habitat occur onsite.

Oak Woodland (including both Engelmann oak woodland and Southern Coast Live Oak Woodland)

Oak woodlands onsite form a closed canopy dense woodland habitat onsite. The Engelmann Oak woodland is dominated by Engelmann oaks with a dense grass understory. The coast liver oak woodland is more densely vegetated with a dense thicket of poison oak as an understory.

Oak woodlands onsite comprise 38.2 acres. All of the oak woodlands onsite were excluded from survey for the Quino checkerspot butterfly.

Southern willow scrub

The southern willow scrub habitat occurs in a small drainage near the southern property boundary. This habitat is a dense (but narrow) habitat comprised of mulefat (*Baccharis glutinosa*) and young willow (*Salix* sp). Approximately 0.6 acres of this habitat occurs onsite.

Vernal Pool

Two vernal pools were located within the property boundaries. Four vernal pools were originally reported, however two were re-located onsite. Two other areas that are better classified as abandoned agriculture ponds exist onsite as well. The vernal pools are located at the southern most corners of the site as evidenced primarily from inundation very few vernal pool indicators were noted. Both pools were weedy consisting of dove weed, toad rush, spurry, and scarlet pimpernel. No sensitive plant or animal species were noted within the pools. The vernal pools were included within the Quino checkerspot butterfly surveys.

Non-native Grassland/Pastureland

Non-native grassland pastureland comprises areas previously graded, grazed, or burned. These areas onsite are dominated by filaree (*Erodium botrys* and *E. cicutarium*) almost to the exclusion of all other species. The filaree dominates the area with 100% ground cover. Scattered areas of barley (*Hordeum vulgare*) and slender oat (*Avena barbata*) as well as mustard and redmaids occur in this area. Although this area is not suitable habitat for the Quino checkerspot butterfly (due to the density of vegetation and lack of open ground), these areas were surveyed in a cursory manner and species documented. Approximately 239.7 acres of habitat is considered abandoned pastureland.

Agriculture/Ornamental Plantings/Disturbed/Developed

Approximately 134.2 acres (90 acres agriculture 8.5 acres disturbed (house and structures and 35.7 acres of eucalyptus woodland) of the Montecito project is currently agriculture, eucalyptus woodland or developed. These areas were excluded from the survey area. Dirt roads around the house, and through the eucalyptus woodland were surveyed.

4.0 Quino Checkerspot Survey Methods

Survey methods followed those outlined in the Year 2000 Survey Protocol for the Quino checkerspot butterfly (USFWS 2000).

- Surveys were conducted on non-consecutive days once per week throughout the five-week survey season. All non-excluded areas were visited during each survey. Due to the size of the site different areas of the project were surveyed within a one week period.

- Surveys were conducted only during acceptable weather conditions (i.e. no fog, drizzle, rain; no sustained winds greater than 15 miles per hour measured four to six feet above ground level; temperature in the shade at ground level was not less than 60°F on a clear, sunny day; or temperature in the shade at ground level was not less than 70°F on an overcast, cloudy, or partly cloudy day.
- Site was surveyed at an average rate of 10 to 15 acres per hour. There are instances where more acreage than the 10 to 15 per hour occurred, however on these days very little was in bloom and there was little to no butterfly activity onsite.

A focused survey for the federally listed Quino checkerspot butterfly (*Euphydryas editha quino*) was conducted by USFWS permitted biologist Denise Moe (permit # TE009390-2) and Elyssa Robertson (permit #TE786714). The project site was surveyed on the following dates shown below in Table 1. Field notes are attached in Appendix 1. Due to the size of the site different areas were surveyed each day and repeated during subsequent weeks. Each biologist surveyed different areas of suitable habitat onsite such that species were not recorded twice and so that the site could be covered within the required time.

| Date | Time | Temperature (°F) | Sky | Wind (Mph) | Personnel |
|--|-----------------|-----------------------------|------------------|-------------------------------|--------------------------------|
| March 2, 2001 (habitat assessment) | 1000 to 1330 | 57-60° | Clear | Begin: 1-2 End: 0 - 3 | Denise Moe Elyssa Robertson |
| March 5, 2001 | 1045 to 1405 | 65-70° | Clear | Begin: 0 - 6.7 End: 5 - 10 | Denise Moe Elyssa Robertson |
| March 12, 2001 | 1130 to 1520 | 62-63° | Clear | Begin: 5-12 End: 4 - 11 | Denise Moe Elyssa Robertson |
| March 13, 2001 | 1055 to 1435 | 65-67° | Clear | Begin: 5-9 End: 0 - 8 | Denise Moe Elyssa Robertson |
| March 15, 2001 | 1310 - 1445 | 68 - 70° | Clear | Begin: 0 - 5 End: 0 - 5 | Denise Moe Elyssa Robertson |
| March 19, 2001 | 0850 to 1320 | 75 - 84° | Clear | Begin: 0 - 5 End: 0 - 3 | Denise Moe Elyssa Robertson |
| March 20, 2001 | 0815 to 1015 | 70 - 78° | Clear | Begin: 0 - 3 End: 0 - | Denise Moe |
| March 27, 2001 | 0900 to 1445 | 60° - 72° | Clear | Begin: 0 - 2 End: 0 - 3 | Denise Moe Elyssa Robertson |
| March 30, 2001 | 0930 to 1530 | 69 to 76° | Clear | Begin: 0- 3 End: 0 - 3 | Denise Moe |
| April 17, 2001 | 1030 to 1400 | 72 - 80° | Clear | Begin: 0 - 3 End: 0 - 3 | Denise Moe |
| April 18, 2001 | 1100 to 1240 | 70° | Partly cloudy | Begin: 0 End: 0 | Denise |

Non-Excluded Areas (Approximately 228 Acres)

Figure 5 shows the general condition of the site including both excluded and non-excluded areas of the site. Non excluded areas onsite included penetrable coastal sage scrub, dirt roads and trails, and the vernal pools onsite. When able, cursory surveys were conducted through the non-native grassland habitat that was dominated by filaree. Special attention was paid to coastal sage scrub habitat with nectar plants, areas with open ground, hill tops, and open dirt roads. The non-native grasslands (filaree dominated) did not support any larval host or nectaring sources.

Excluded Areas (Approximately 707 acres)

Excluded areas included the active agriculture, eucalyptus woodland (except for the dirt road through the woodland), oak woodland, riparian scrub habitats, dense chaparral, and dense impenetrable coastal sage scrub.

5.0 Host Plants and Nectar Sources

The Quino checkerspot butterfly's primary host plant is *Plantago erecta*. Other possible larval host plant species include *Castilleja exserta* and/or *Cordylanthus rigidus* (USFWS 2000) as well as *Collinsia* and possibly other Scrophulariaceae (Ballmer *et al.* 2000). *Plantago erecta* and *Plantago ovata* were found onsite (Figure 5 and 6). The *Plantago* was found on the prominent hilltop, the slope of the secondary hilltop, and at the side of the main dirt road. Monkey flower (*Mimulus* sp.), a member of the Scrophulariaceae family, occurred sparsely in the coastal sage scrub habitat onsite. Indian paint brush (*Castilleja* sp.) was also observed onsite near the dirt road with the plantago.

Quino checkerspot butterfly nectar sources include, but are not necessarily limited to, members of the Asteraceae family (*Lasthenia* spp., *Layia* spp., *Ericameria* spp.), *Cryptantha* spp. and *Allium* spp. (U.S. Fish and Wildlife Service, 2000). Ballmer *et al.* (2000) also includes fiddleneck (*Amsinkia intermedia*), chia (*Salvia columbariae*), blue dicks (*Dichelostemma pulchella*) and various mustards as potential nectar sources. The coastal sage scrub onsite supports blue dicks (*Dichelostemma pulchella*), chia, fiddleneck (*Amsinkia intermedia*), *Cryptantha* spp., and black mustard (*Brassica nigra*) as possible nectar sources.

6.0 Butterflies Observed

Fifteen different species of butterflies were observed on the Montecito property, with the predominant species being the ladies (*Vannessa cardui*, *V. virginiensis*, and *V. anabella*). The majority of butterfly activity occurred along the main dirt road that traverses the site from east to west and at the two prominent hill tops. Sara's orangetip were observed within the small rills onsite and utilizing the trails. The majority of the butterflies not observed on the dirt road were observed within the open coastal sage scrub habitat onsite.

| Butterflies observed on the Montecito Project Site | | | | | | | | | | | | |
|--|--|---------|----------|----------|----------|----------|----------|----------|----------|-------------|-------------|-------|
| | March 2 Habitat assessment (nt) | March 5 | March 12 | March 13 | March 15 | March 19 | March 20 | March 27 | March 30 | April 17 | April 18 | Total |
| Acmon Blue <i>Icaricia acmon</i> | | | | | | 1 | | 4 | | 2 | 3 | 10 |
| Behr's Metalmark <i>Apodemia mormo virgultii</i> | | | | | | 2 | | 14 | 4 | 7 | 4 | 31 |
| Alfalfa Butterfly <i>Colias eurytheme</i> | | | | | | | | | | 2 | | 2 |
| California Ringlet <i>Coenonympha californica</i> | | | | | | | 1 | | 2 | | | 3 |
| Common White <i>Pontia protodice</i> | | | | | | 2 | | 1 | | 1 | | 4 |
| Funereal Duskywing <i>Erynnis funeralis</i> | | 1 | | 1 | | 4 | | 20 | 6 | 1 | 1 | 34 |
| Gray Hairstreak <i>Strymon melinus</i> | | | | 1 | 3 | | | | | | | 4 |
| Painted Lady <i>Vanessa cardui</i> | 1 | 3 | 7 | 6 | | 18 | | 25 | 3 | 5 | 2 | 70 |
| Perplexing Hairstreak <i>Callophrys perplexa</i> | | | | 4 | 4 | 3 | | 13 | 5 | 1 | | 30 |
| Sara Orangetip <i>Anthocharis sara</i> | | 3 | 1 | 7 | 3 | 9 | 3 | 19 | 10 | 2 | | 57 |
| Sonoran Blue <i>Philotes sonorensis</i> | | | | | | | | | 1 | | | 1 |
| Virginia Lady <i>Vanessa virginiensis</i> | | | | | | | | 4 | | | 2 | 6 |
| West Coast Lady <i>Vanessa anabella</i> | | | | 4 | 2 | 1 | | 2 | | | | 9 |
| Unidentified Blue (flybys) | | | | 1 | | 2 | | 10 | 3 | 4 | 4 | 24 |
| Unidentified Lady (flyby) | | 2 | | 6 | 1 | | | 44 | 13 | 18 | 5 | 89 |